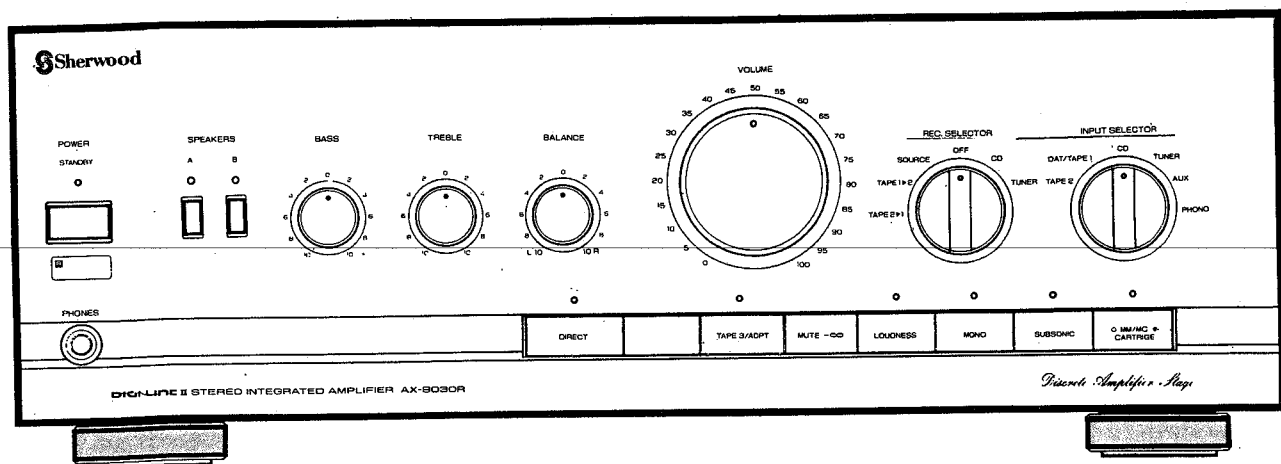


SERVICE MANUAL

AX-9030R/9035R

STEREO INTEGRATED AMPLIFIER



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SAFETY PRECAUTIONS

WARNING

Before servicing this unit, familiarize yourself with the following precautions:

1. Many electrical and mechanical parts in this chassis have special safety characteristics that often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by \triangle in the schematic diagram and the parts list.

Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

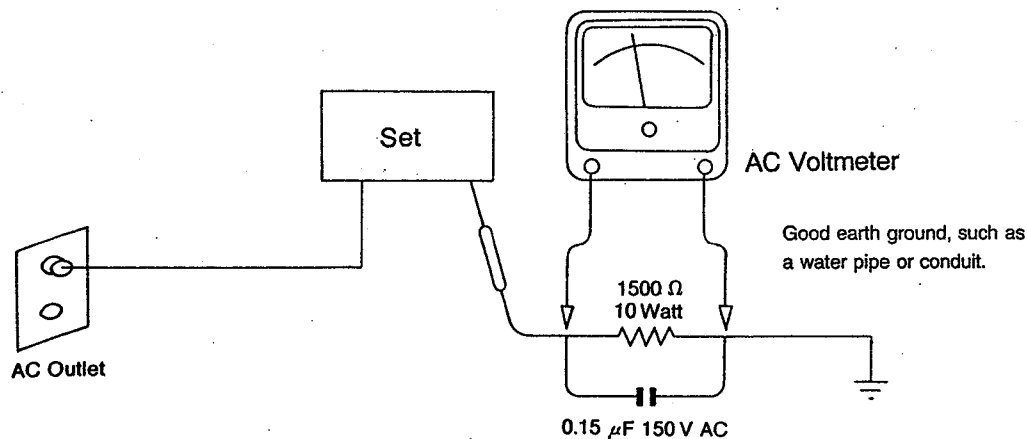
2. Before returning the set to the customer, always do an AC leakage current check on the exposed metal parts of the cabinet, such

as terminals, screw heads, and metal overlays, to be sure the set is safe to operate.

Plug the AC line cord directly into a 120 V AC outlet (120 V AC version only). (Do not use a line isolation transformer during this check.)

Be sure your AC voltmeter has a sensitivity of 5000 Ω per volt or greater. Then connect a 1500 Ω 10 watt resistor, paralleled by a 0.15 μ F 150 V AC capacitor, between a known good earth ground (such as a water pipe, or conduit) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination of a 1500 Ω resistor and a 0.15 μ F capacitor. Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.75 V RMS. This corresponds to 0.2 mA AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.

At 5000 Ω per volt or greater sensitivity,
the reading should not exceed 0.75 V.



Place the probe on each exposed metallic part.

SPECIFICATIONS

Amplifier	Unit	Nominal	Limit
RMS output power at distortion below 0.03 % 20 Hz - 20 kHz both channels driven at 8 Ω	W	110	105
at distortion below 0.03 % 1 kHz both channels driven at 8 Ω	W	120	115
Inter-modulation distortion at 105 W output 60 Hz : 7 kHz=4 : 1 SMPTE both channels driven at 8 Ω	%	0.007	0.01
Harmonic distortion at 105 W output:			
20 Hz	%	0.005	0.009
1 kHz	%	0.005	0.009
20 kHz	%	0.005	0.002
Frequency response at AUX 8 Ω load, 1 W output -3 dB	Hz	16 - 80	20 - 75
Input sensitivity at 105 W output 8 Ω 1 kHz:			
PHONO MC	mV	0.11	± 0.1
PHONO MM	mV	2.5	± 0.5
AUX	mV	150	± 30
Tone control:			
BASS, 100 Hz	dB	± 8	± 2
TREBLE, 10 kHz	dB	± 8	± 2
Phono amp overload at 0.7 % THD, 1 kHz	mV	180	160
Loudness compensation at -30 dB volume:			
100 Hz	dB	+5	± 2
10 kHz	dB	+3	± 1.5
Channel separation at AUX:			
100 Hz	dB	74	70
1 kHz	dB	74	70
10 kHz	dB	60	55
Signal to noise ratio(WTD/UNWTD):			
PHONO MC	dB	70/60	60/57
PHONO MM	dB	76/70	75/68
AUX	dB	96/90	93/87
Crosstalk at 1 kHz:			
AUX \Rightarrow MONITOR	dB	88	85
AUX \Rightarrow PHONO	dB	68	66

General

Speaker load impedance	4~16 Ω
Power consumption:	900 W
Dimensions (H \times W \times D)	160 (H) \times 440 (W) \times 397.5 (D)
Weight	20 kg

Power requirements:

- A : 120 V 60 Hz for American/Canadian version
- B : 120/220 V, 60/50 Hz for multi voltage area version (switchable)
- D : 230 V, 50 Hz for German and General European version
- E : 240 V, 50 Hz for UK/Australia version
- G : 220 V, 50 Hz for Other area

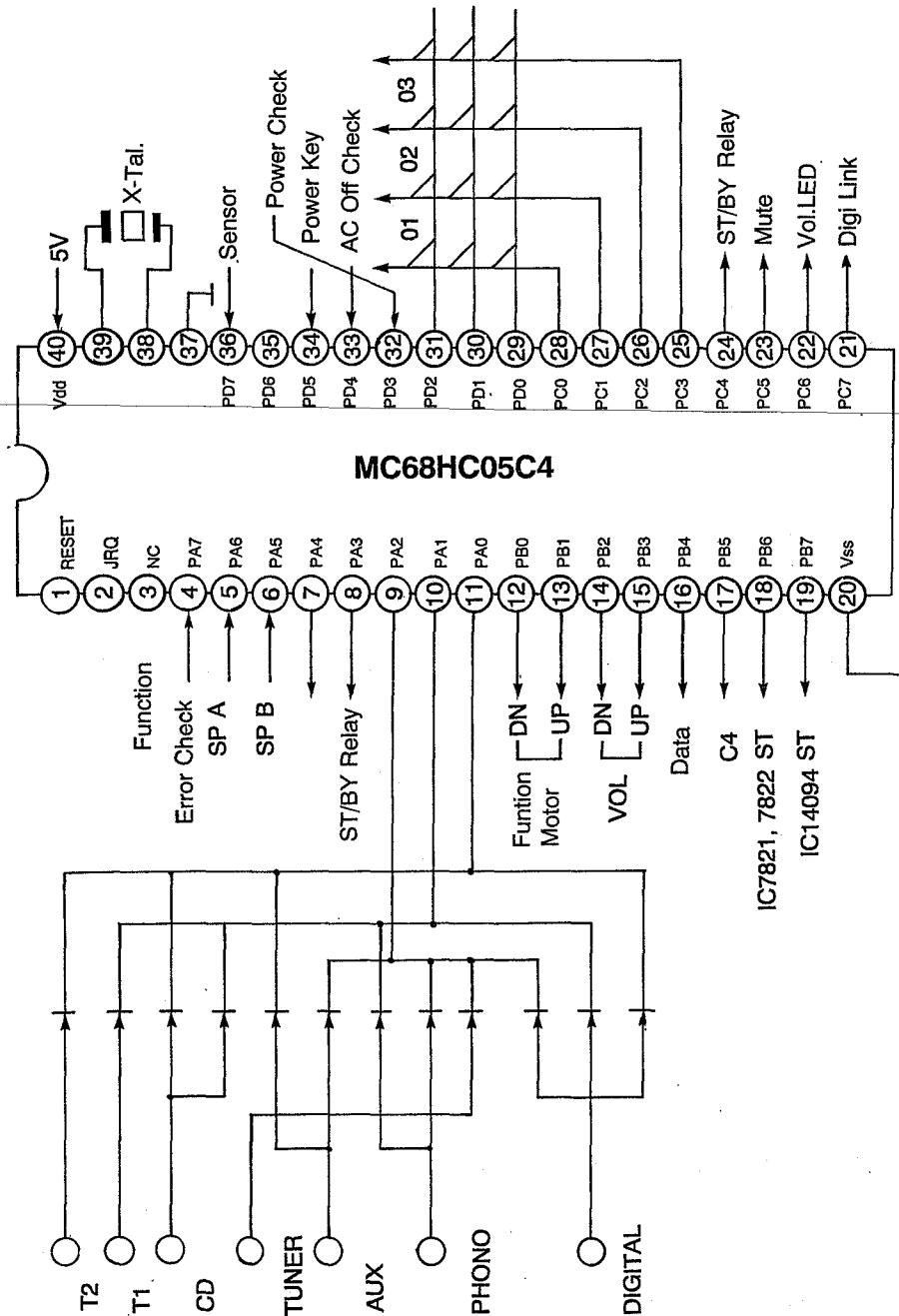
Note :

- Nominal specs represent the design specs. All units should be able to approximate these-some will exceed and some may drop slightly below these specs. Limit specs represent the absolute worst condition that still might be considered acceptable: in no case should a unit fail to meet limit specs.
- This manual is based on the General European (D) standard, and provides information on regional circuit modification through the use of alternate schematic diagrams or wiring diagrams, and information on regional component variations through the use of parts lists. Design and specifications subject to change without notice.

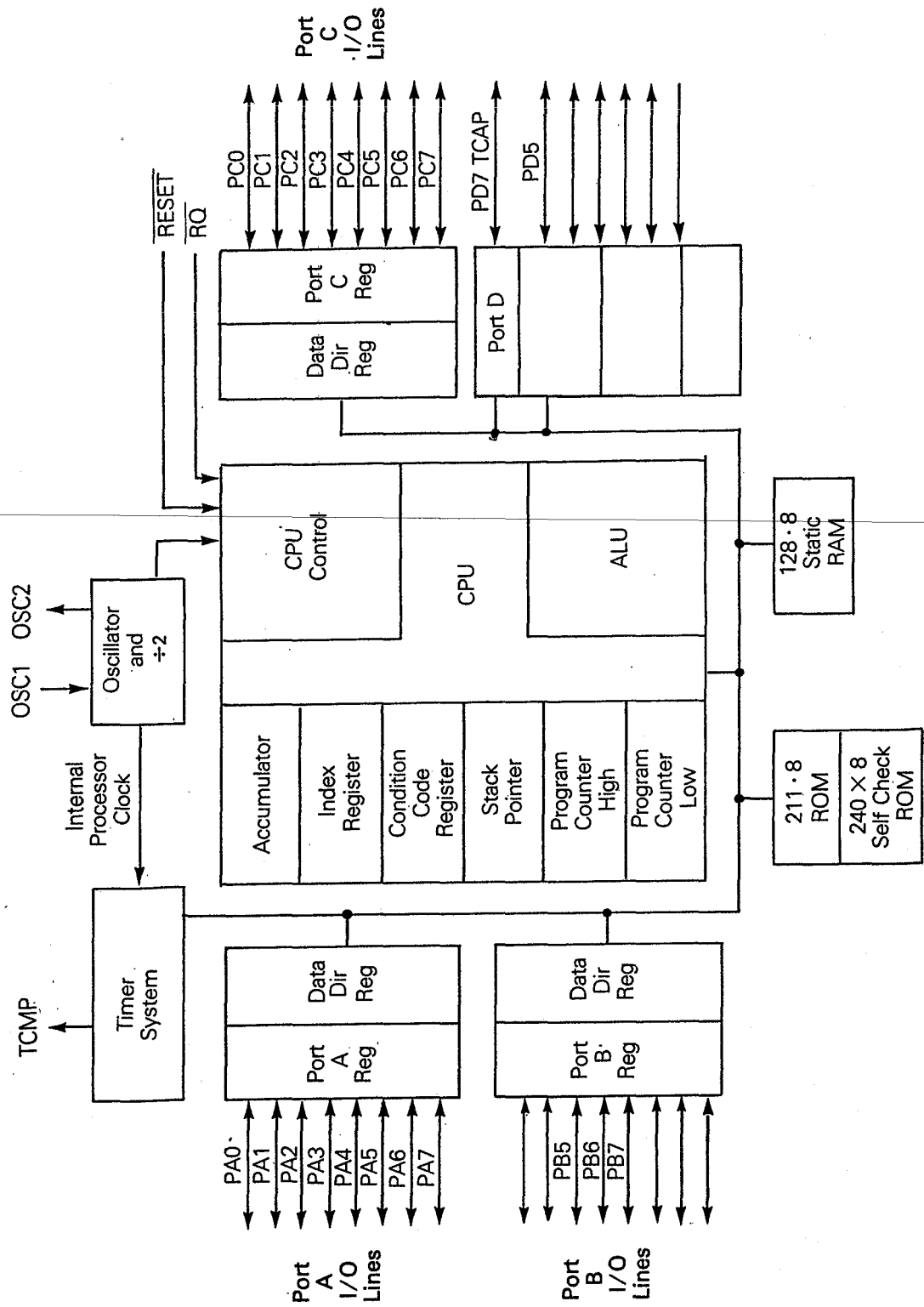
CIRCUIT DESCRIPTION

IC601: MC68HC05C4 (LSC412224P DWP114) 8-bit MICROPROCESSOR

Pin Connection

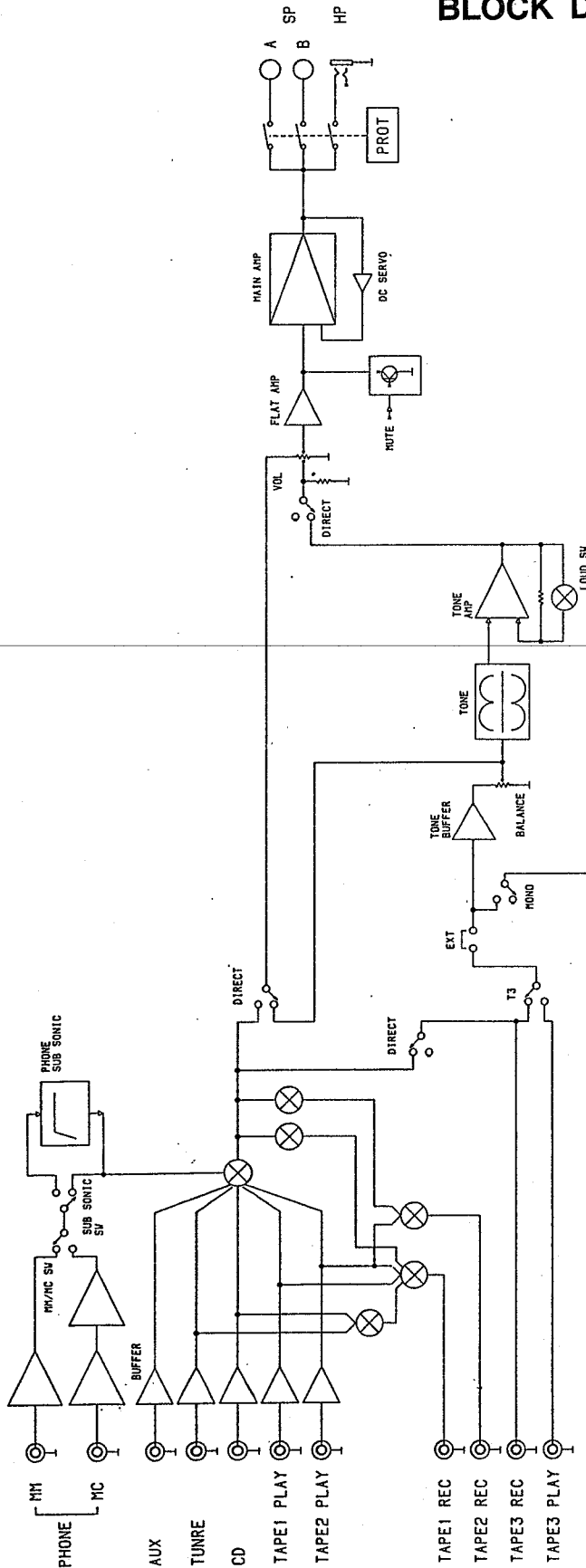


Block Diagram

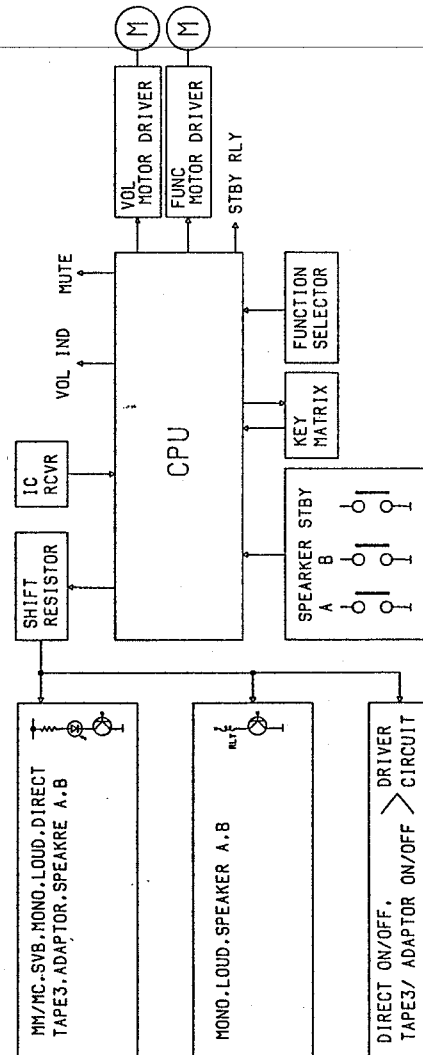
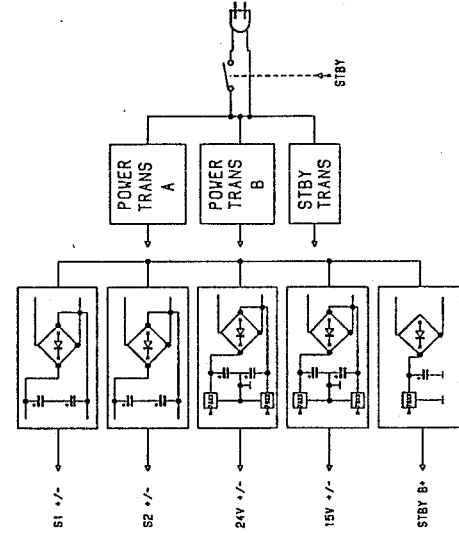


BLOCK DIAGRAMS

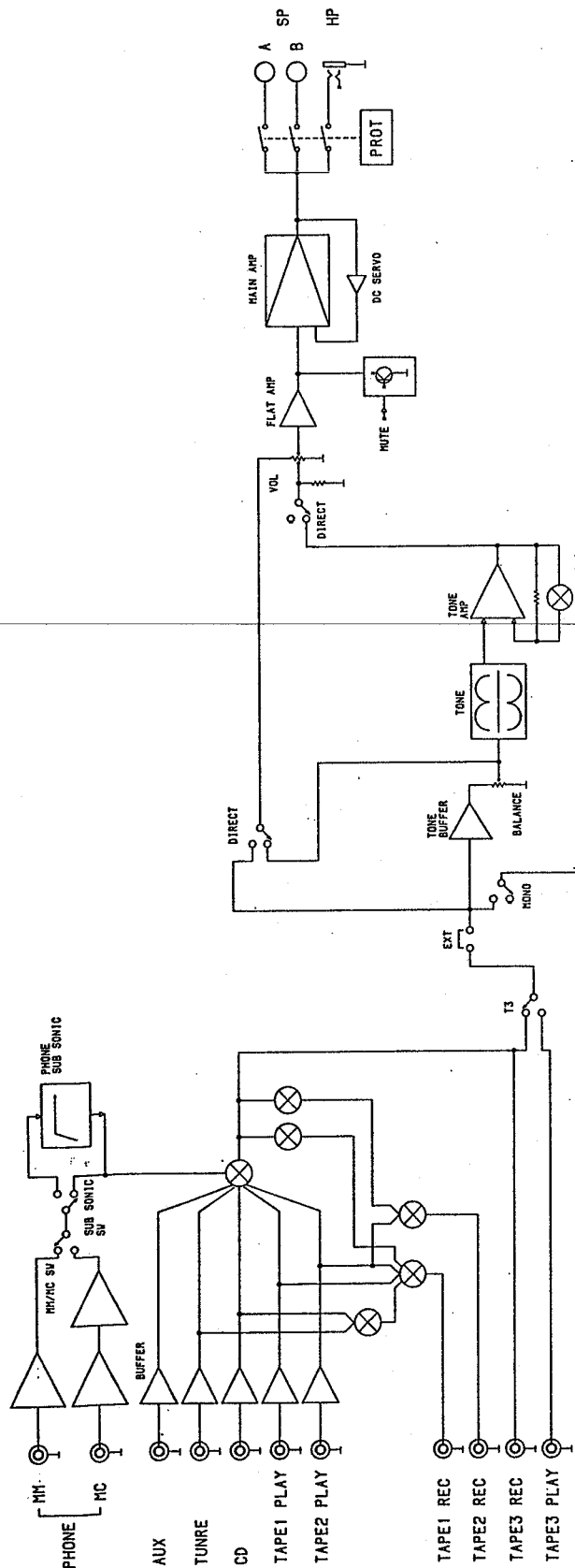
Model No.: AX-9030R



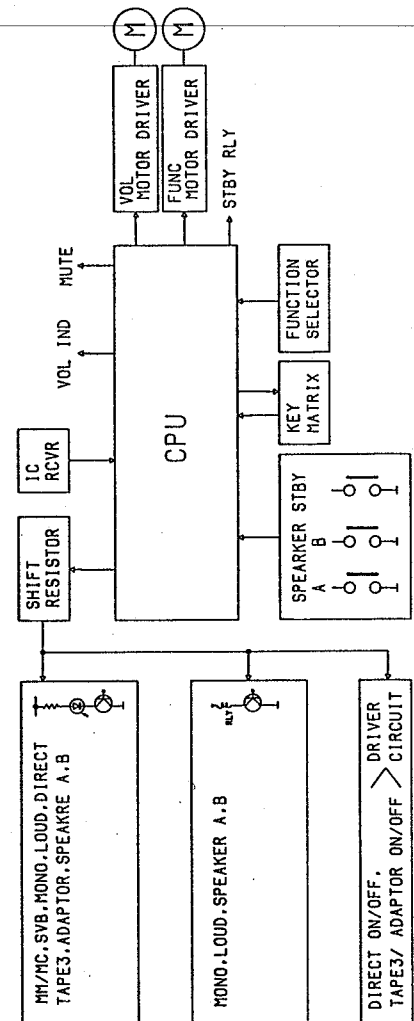
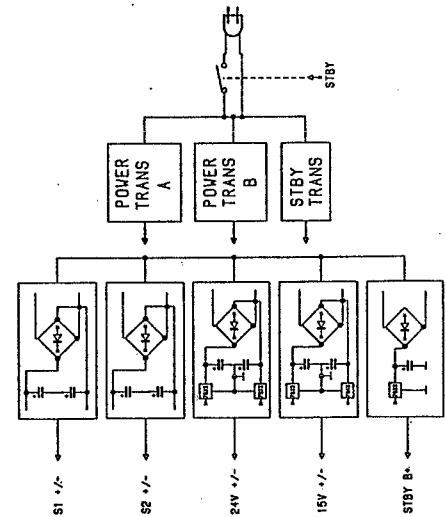
R - CH (THE SAME AS L - CHANNEL)



Model No.: AX-9035R



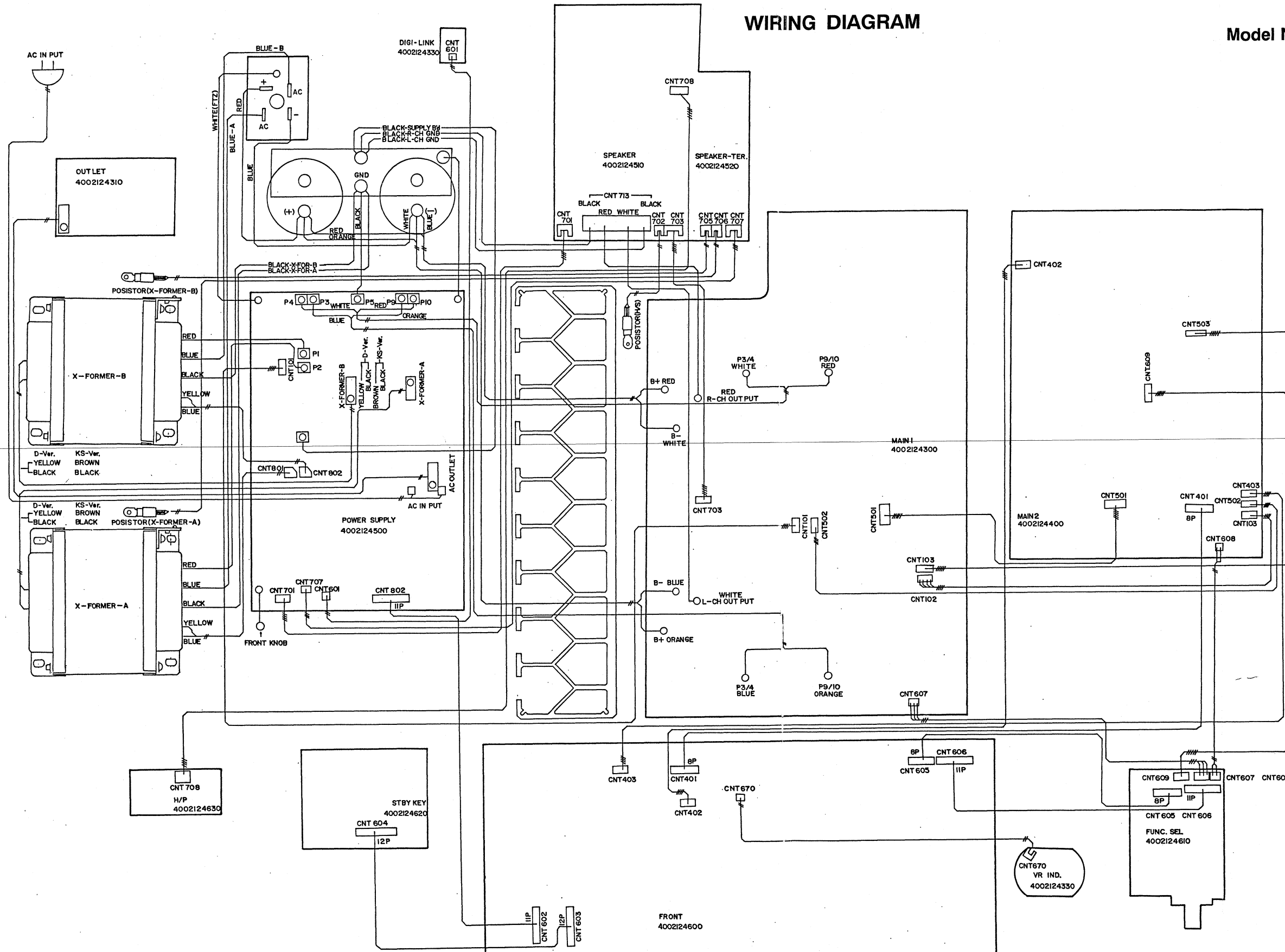
R - CH (THE SAME AS L - CHANNEL)



Notes

WIRING DIAGRAM

Model No.: AX-9030R/9035R



TROUBLESHOOTING

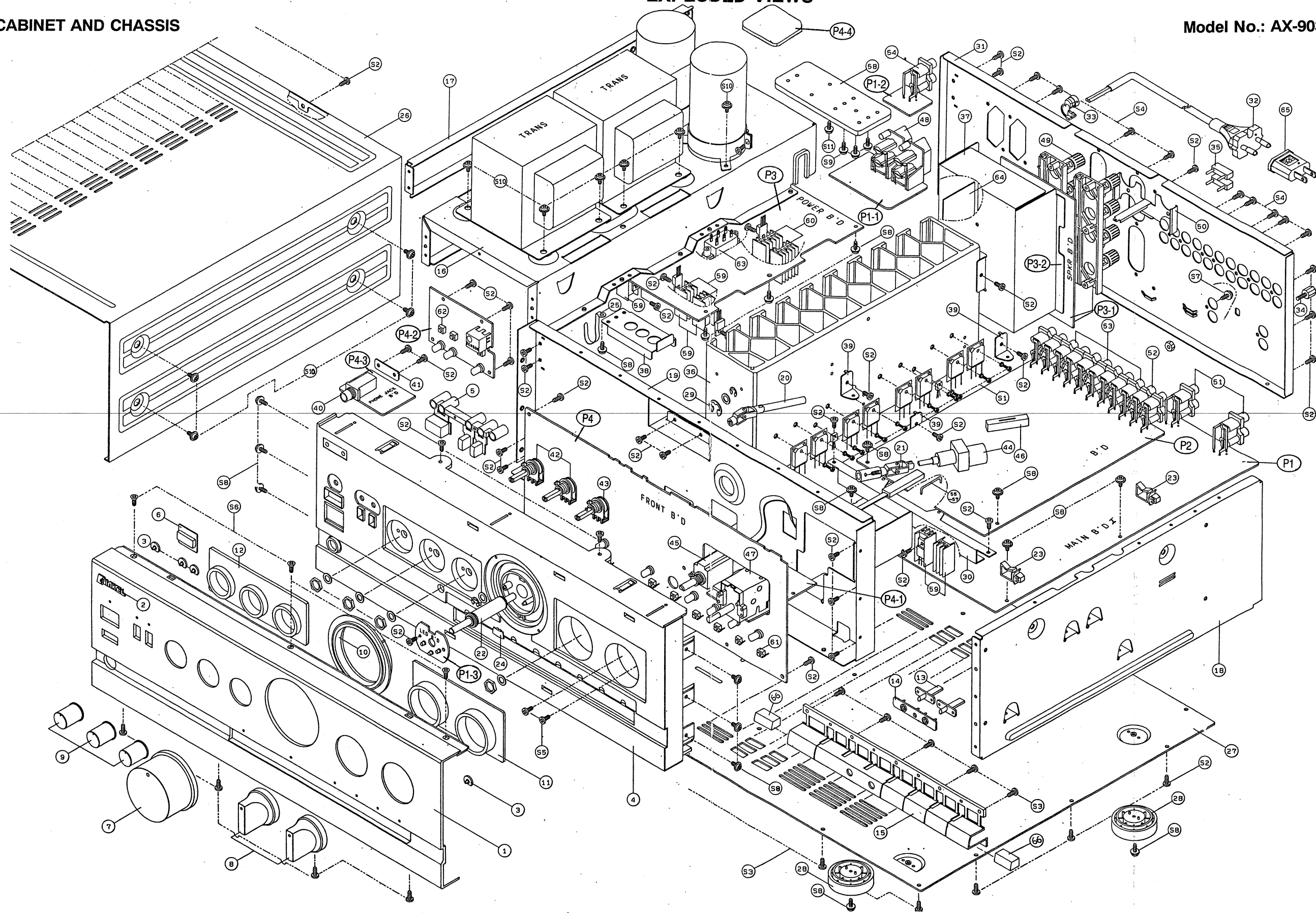
Symptom	Cause and Remedy
Amplifier inoperative.	<ul style="list-style-type: none"> Faulty AC power cord. Replace. Defective power switch. Replace. Broken wire in the power transformer. Replace the power transformer. Defective power transformer. Replace. Damaged rectifying diodes D801 (KPBC2504). Replace the defective. Short in the rectifying circuit. Repair the short.
EXT output normally but headphones inoperative.	<ul style="list-style-type: none"> Headphone plug dose not mate with jack. Replace the plug. Defective in relay RLY703 on speaker A board. Replace.
No sound from both channels or one channel.	<ul style="list-style-type: none"> Defective in transistors Q514 L/R, Q515 L/R on main1 board. Replace the defective component (s). Defective in relays RLY701, RLY702 on speaker A board. Replace the defective components. Defective speaker selector switch. Replace.
The standby function does not work.	<ul style="list-style-type: none"> Defective in transistor Q521 on standby key board. Replace the defective component. Defective in transistor Q801 on supply board. Replace. Damaged rectifying diodes D821 to 824. Replace the defective. Defective in relay RLY811 on standby board. Replace. Defective IC601 pin 24, 34. Replace the IC601. Defective standby transformer (X-FOR.803). Replace. Defective in the standby circuit. Repair.
The indicators are not on.	<ul style="list-style-type: none"> Defective in IC601 on front board. Replace the IC601 (CPU). Defective in diodes D601 to D614. Replace the defective components.
No record from source to recorder.	<ul style="list-style-type: none"> Defective IC308. Replace. Defective selector switch SW on main 2 board. Replace.
Volume, motor does not work.	<ul style="list-style-type: none"> Defective motor, volume. Replace. Defective IC603 pin 1, 9. Replace the IC603. Defective IC601 pin 14, 15. Replace the IC601.

Symptom	Cause and Remedy
Function selector inoperative.	<ul style="list-style-type: none"> Defective motor, function selector. Replace. Defective IC604 pin 1, 9. Replace the IC604. Defective selector switch SW46 on main 2 board. Replace.

CABINET AND CHASSIS

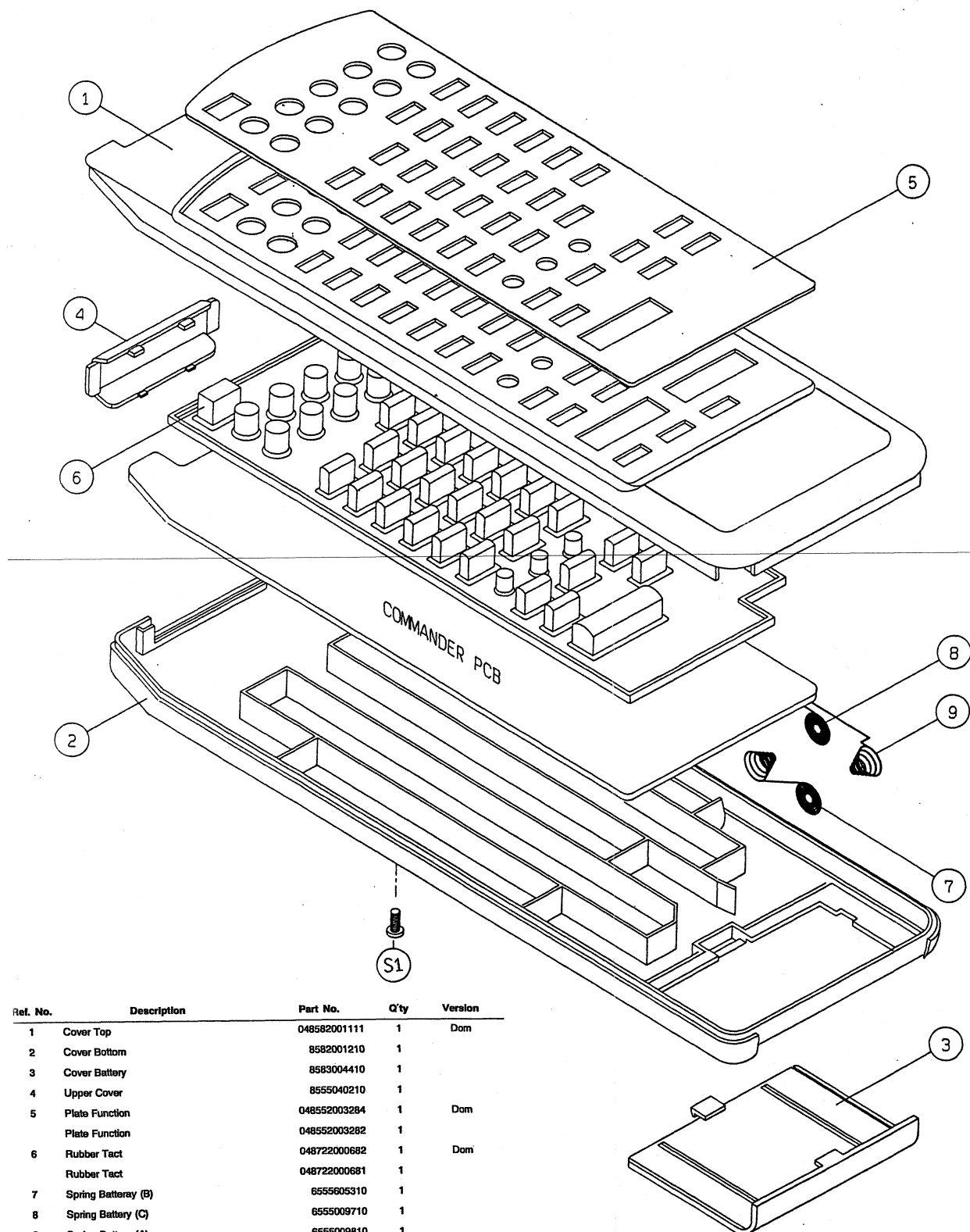
EXPLODED VIEWS

Model No.: AX-9030R/9035R



REMOTE CONTROL UNIT

Model No.: AX-9030R/9035R



Ref. No.	Description	Part No.	Q'ty	Version
1	Cover Top	048582001111	1	Dom
2	Cover Bottom	8582001210	1	
3	Cover Battery	8583004410	1	
4	Upper Cover	8555040210	1	
5	Plate Function	048552003284	1	Dom
6	Rubber Tact	048722000682	1	Dom
7	Rubber Tact	048722000681	1	
8	Spring Battery (B)	6555050310	1	
9	Spring Battery (C)	6555009710	1	
10	Spring Battery (A)	6555009810	1	
	Screw #2PT 2x8N	8119620084	1	

MECHANICAL PARTS LIST

Ref. No.	Parts No.	Description	Q'ty	Version	Ref. No.	Parts No.	Description	Q'ty	Version
PACKAGE					43	3208060010	VR (250 kMN)	1	
	9722035010	Cushion Poly	1		44	3208064810	VR Main (50 kAx2)	1	
	9715000120	Film Soft	1		45	4608003010	SW Selector SRBU0622	1	
ACCESSORY					46	4618008710	SW Selector SRBU2621	1	
	9007017121	Manual INST	1		47	4618008810	SW Selector SRBAA260	1	
CABINET					48	△ 4448103910	AC Outlet, ABS Black	2	Dom
					△	4448102810	AC Outlet, ABS Black	1	A,B
					△	4448103610	AC Outlet, ABS Black	2	D
1	048601026411	Panel Front, Al. Black	1	Dom	49	4408106910	Terminal Speaker	2	
	048601026412	Panel Front, Al. Black	1		50	6165141210	BKT Terminal Speaker, SECC+ZN Black	1	
2	048535034011	Badge, Inkel	1	Dom	51	4438304010	Jack RCA (2P), Gold	2	
	048535033911	Badge, Sherwood	1		52	4438304110	Jack RCA (4P), Gold	1	
3	8555043110	Guide LED, P/C Milky	9		53	4438304210	Jack RCA (6P), Gold	3	
4	8521008010	Body Front, ABS Black	1		54	4438304410	Jack Digilink, Gold	1	
5	048643006111	Button Power 3Key, Al. Black	1		55	6165141410	Power Bend (A), Gold	14	
6	040555043211	Window Sensor, P/C Smock	1		56	6165141420	Power Bend (B), Gold	2	
7	048643006211	Knob Main, Al. Black	1		57	6165141430	Power Bend (C), Gold	2	
8	048643005511	Knob Function, Al. Black	2		58	6165144410	Power Bend (D), Gold	1	
9	048643005611	Knob Blance, Al. Black	3		59	7505206210	H/Sink, Regulator TR.	11	
10	8533007710	Bezel Main, ABS Black	1		60	7505206110	H/Sink, Regulator TR.	2	
11	8533007810	Bezel Function, ABS Black	1		61	4658004210	Switch Tact	7	
12	8533007910	Bezel Blance, ABS Black	1		62	4658003710	Switch Tact	3	
13	8545109510	Knob Push, ABS Black	2	Dom Only	63	△ 4618007710	Voltage Selector	2	Dom,B
14	048545109611	Bezel Ring, ABS Gold	1	Dom Only	64	4835021220	Plate Cover, PVC	1	
15	048642008311	Button Tact 8Key, Al. Black	1	Dom	65	4428300310	Adapter	1	Dom Only
	048642000411	Button Tact 8Key, Al. Black	1		66	8545112410	Decolation Knob, ABS Black	2	
16	6121607410	Left Frame, SECC+ZN Black	1						
17	6122633110	BKT Frame, SECC+ZN Black	1		P1	4002124300	P.C.Board Main 1	1	
18	6122633010	Right Frame, SECC+ZN Black	1		P1-1	4002124310	P.C.Board Outlet	1	
19	6121607510	Chassis Front, SECC+ZN Black	1		P1-2	4002124320	P.C.Board Digilink	1	
20	058555043610	System Universal	1		P1-3	4002124330	P.C.Board Volume Indicator	1	
21	058555043710	Volume Universal	1		P2	4002124400	P.C.Board Main 2	1	
22	058555043810	Knob Universal	1		P3	4002124500	P.C.Board Power Supply	1	
23	6528302310	Fastener	2		P3-1	4002124510	P.C.Board Speaker-A	1	
24	6715023010	Cushion Knob, CR Rubber Black	1		P3-2	4002124520	P.C.Board Speaker-B	1	
25	6525002610	Retainer Coil	2		P4	4002124600	P.C.Board Front	1	
26	046122022811	Cover Top, SECC+ZN Black	1		P4-1	4002124610	P.C.Board Function Selector	1	
27	6122635510	Cover Bottom, SECC+ZN Black	1		P4-2	4002124620	P.C.Board ST/BY Key	1	
28	046033101611	Foot "A", ABS Gold Hot Stamping	4,(2) (Dom)		P4-3	4002124630	P.C.Board Headphone	1	
	046033101711	Foot "B", Gold Ring	2	Dom Only	P4-4	4002124640	P.C.Board Bridge Diode	1	
29	8339060310	E-Ring (9)	1						
30	6123622810	VR. Motor Frame, SECC+ZN Black	1		S1	8099130121	Screw HFX MSPW 3x12Y	10	
31	046102032711	Chassis Back, SECC+ZN Black	1	Dom	S2	8109230083	Screw #2BTC 3x8B	68	
	046102032721	Chassis Back, SECC+ZN Black	1	A	S3	8109230103	Screw #2BTC 3x10B	15	
	046102032731	Chassis Back, SECC+ZN Black	1	B	S4	8119130103	Screw #1PT 3x10B	19	
	046102032741	Chassis Back, SECC+ZN Black	1	Eur.	S5	8119430083	Screw SAM 3x8B	2	
	046102032751	Chassis Back, SECC+ZN Black	1	Ger.	S6	8129230123	Screw #2FTC 3x12B	3	
	046102032761	Chassis Back, SECC+ZN Black	1	E	S7	8155000710	Screw GND	2	
32	△ 4308002410	Cord AC Power, ABS Black	1	Dom	S8	8159230083	Screw #2WPTC 3x8B	31	
	△ 4308001410	Cord AC Power, ABS Black	1	A,B	S9	8159440081	Screw WSAM 4x8Y	6	
	△ 4308002310	Cord AC Power, ABS Black	1	D	S10	8159440083	Screw WSAM 4x8B	22	
	△ 4308000610	Cord AC Power, ABS Black	1	E	S11	8159440203	Screw WSAM 4x20B	1	
33	6513000310	Cord Stopper, ABS Black	1	Dom Only					
	6518000710	Cord Stopper, ABS Black	1	A,B					
	6518000111	Cord Stopper, ABS Black	1	D,E,					
34	4463100420	Ground Terminal, Gold	1						
35	4328204210	Jump Plug	2						
36	7502005410	H/Sink Power, Black	1						
37	6503024410	BKT H/Sink, SECC+ZN Black	1						
38	6505118110	BKT Wire, SECC+ZN Black	2						
39	6505103920	BKT PCE, SECC+ZN Black	3						
40	4438005020	Jack Phone	1						
41	6505129410	BKT Jack Phone, SECC+ZN Black	1						
42	3208059910	VR (100 kAx2)	2						

PRODUCT SAFETY NOTICE

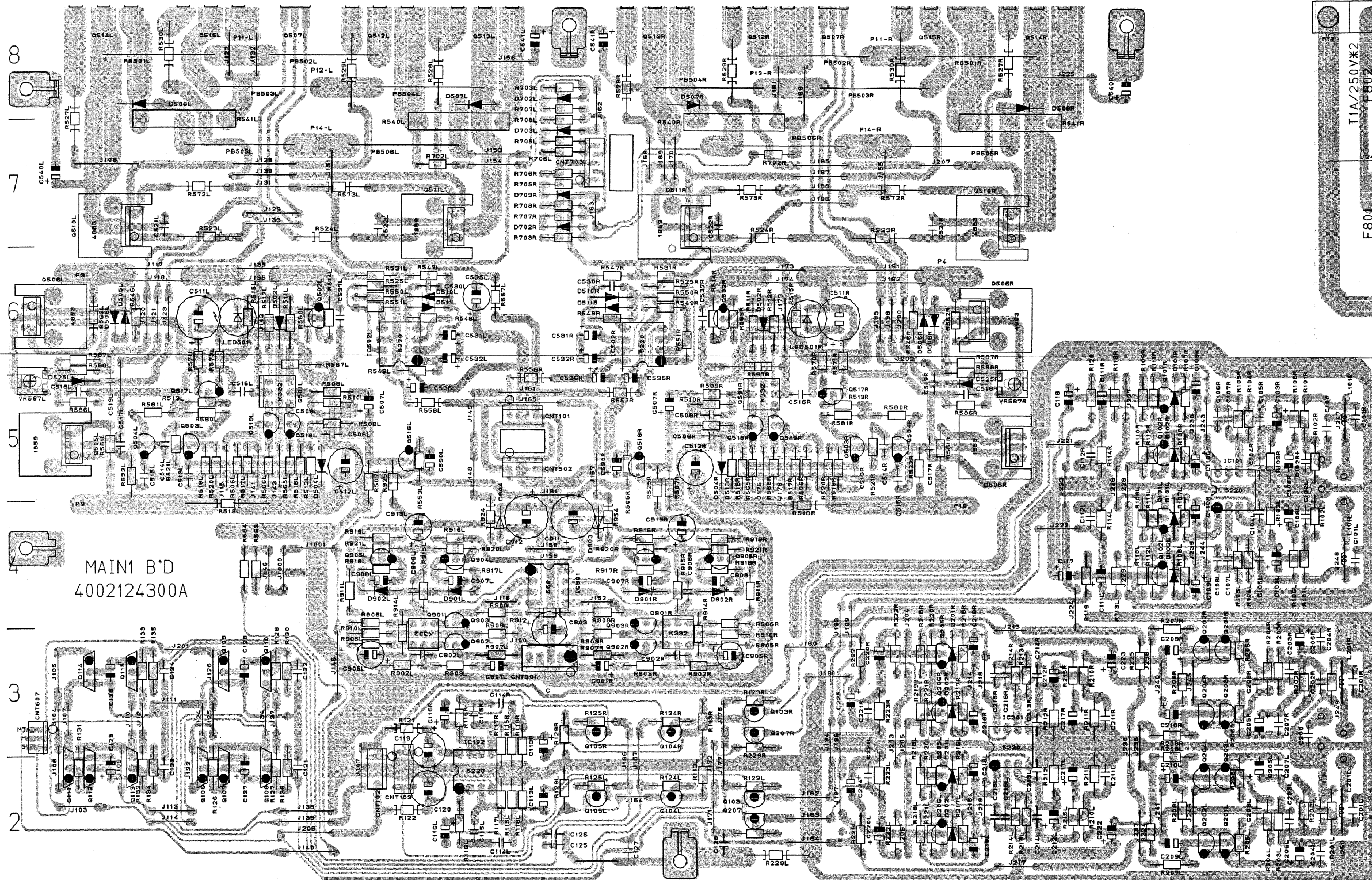
Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol △ in the parts list and the safety can be of special significance. When replacing a component identified with △, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

PRODUCT SAFETY NOTICE

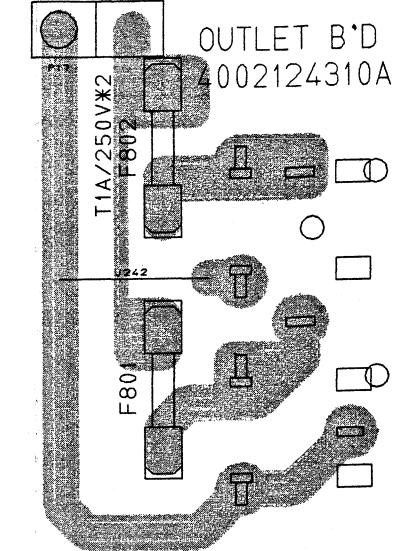
Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol Δ in the parts list and the safety can be of special significance. When replacing a component identified with Δ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

PRINTED CIRCUIT BOARDS

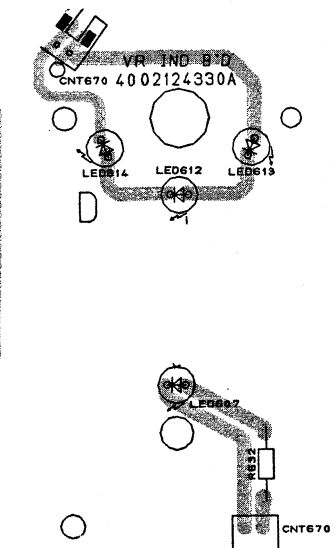
P.C.Board Main1



P.C.Board Outlet



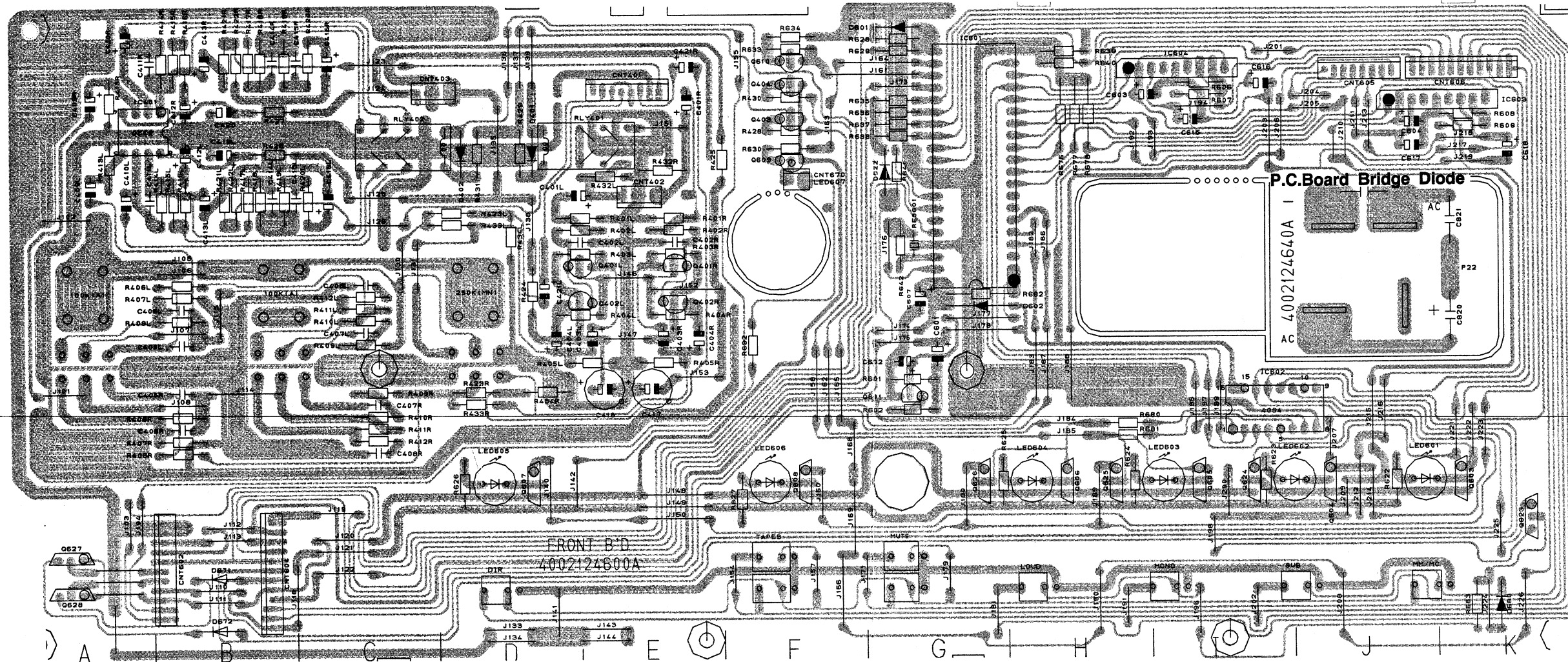
P.C.Board Volume Ind.



P.C.Board Digi Link

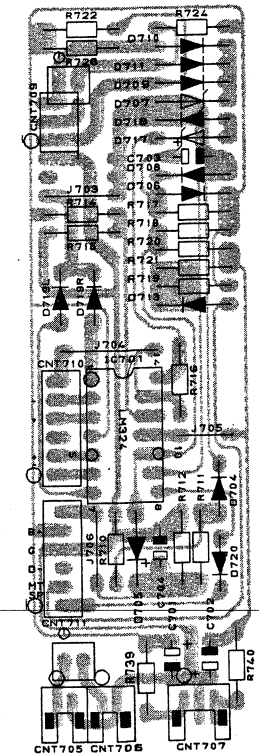


P.C.Board Front

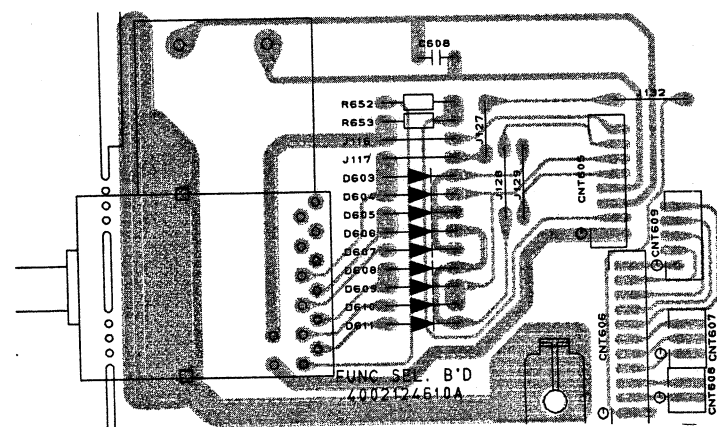


P.C.Board Speaker B

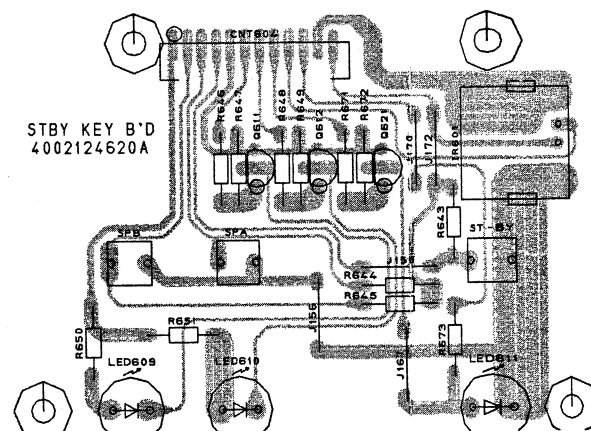
SPEAKER TER.-B
4002124520A



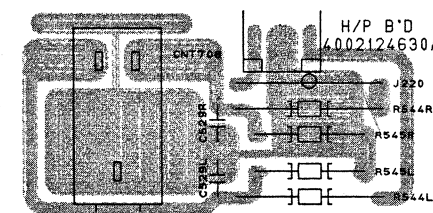
P.C.Board Functn



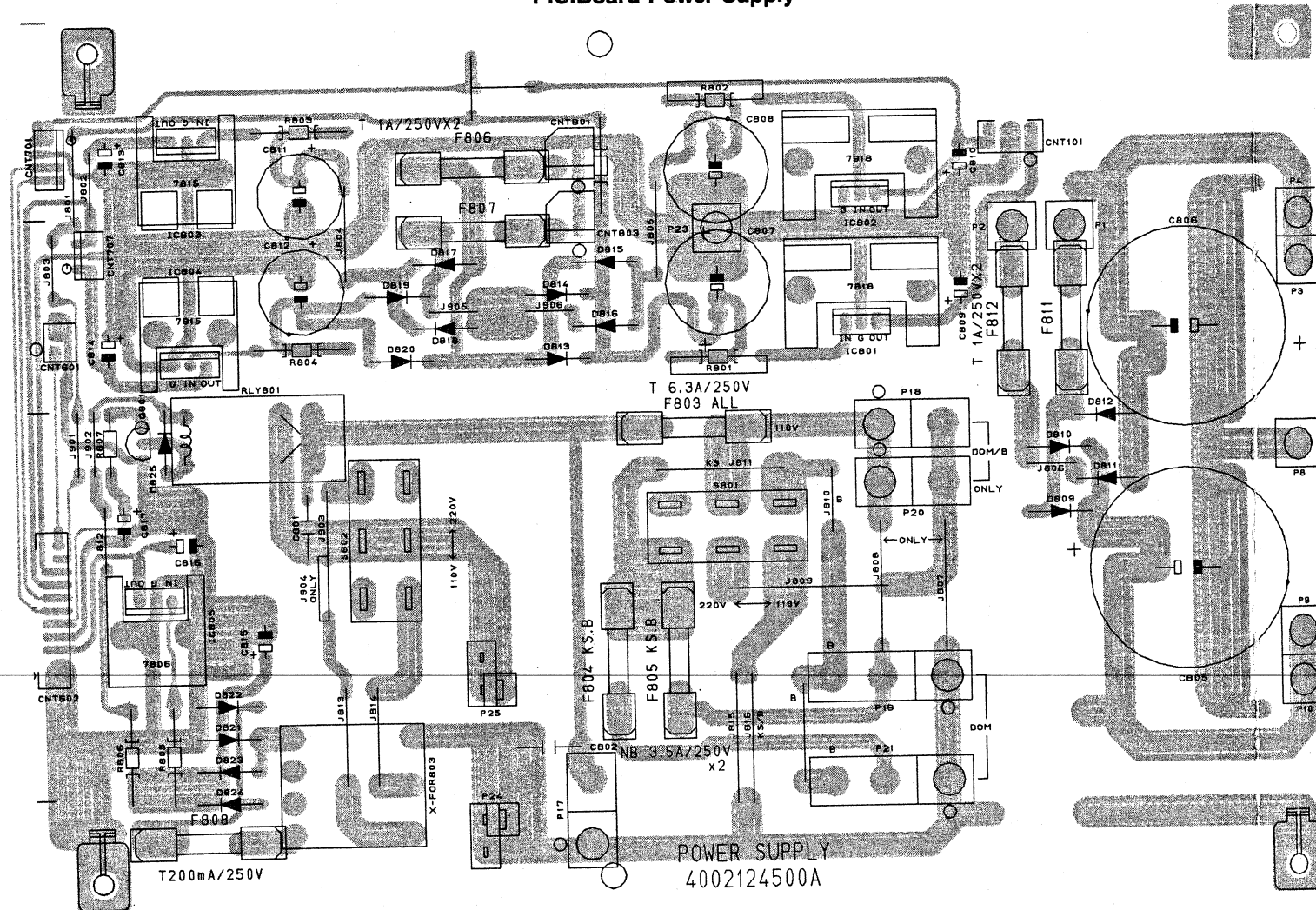
P.C.Board ST/BY Key



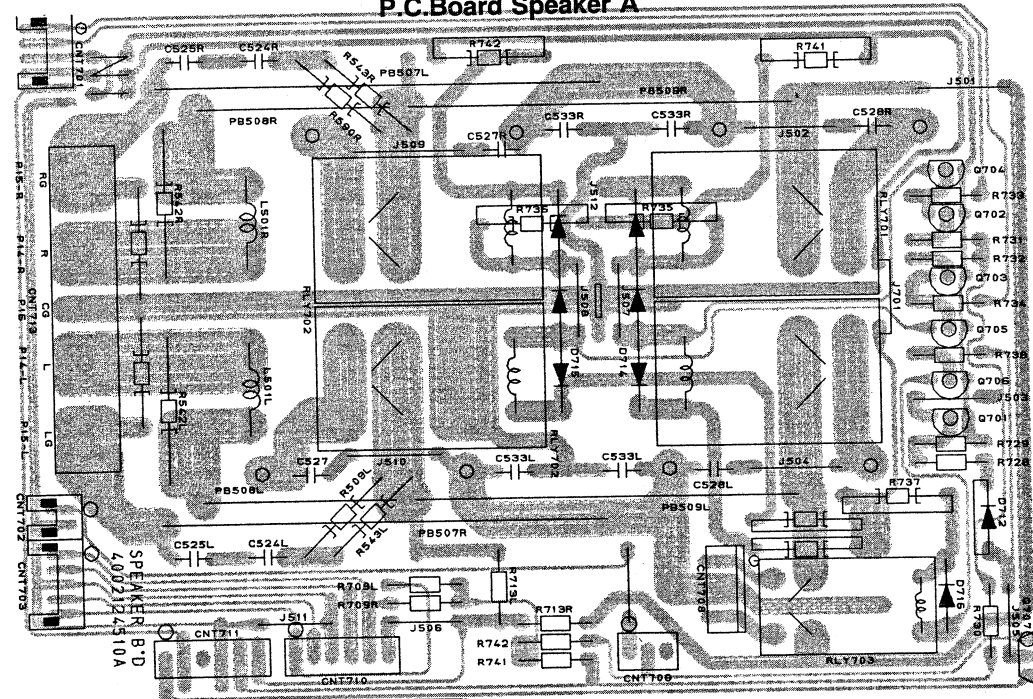
P.C.Board Headphone



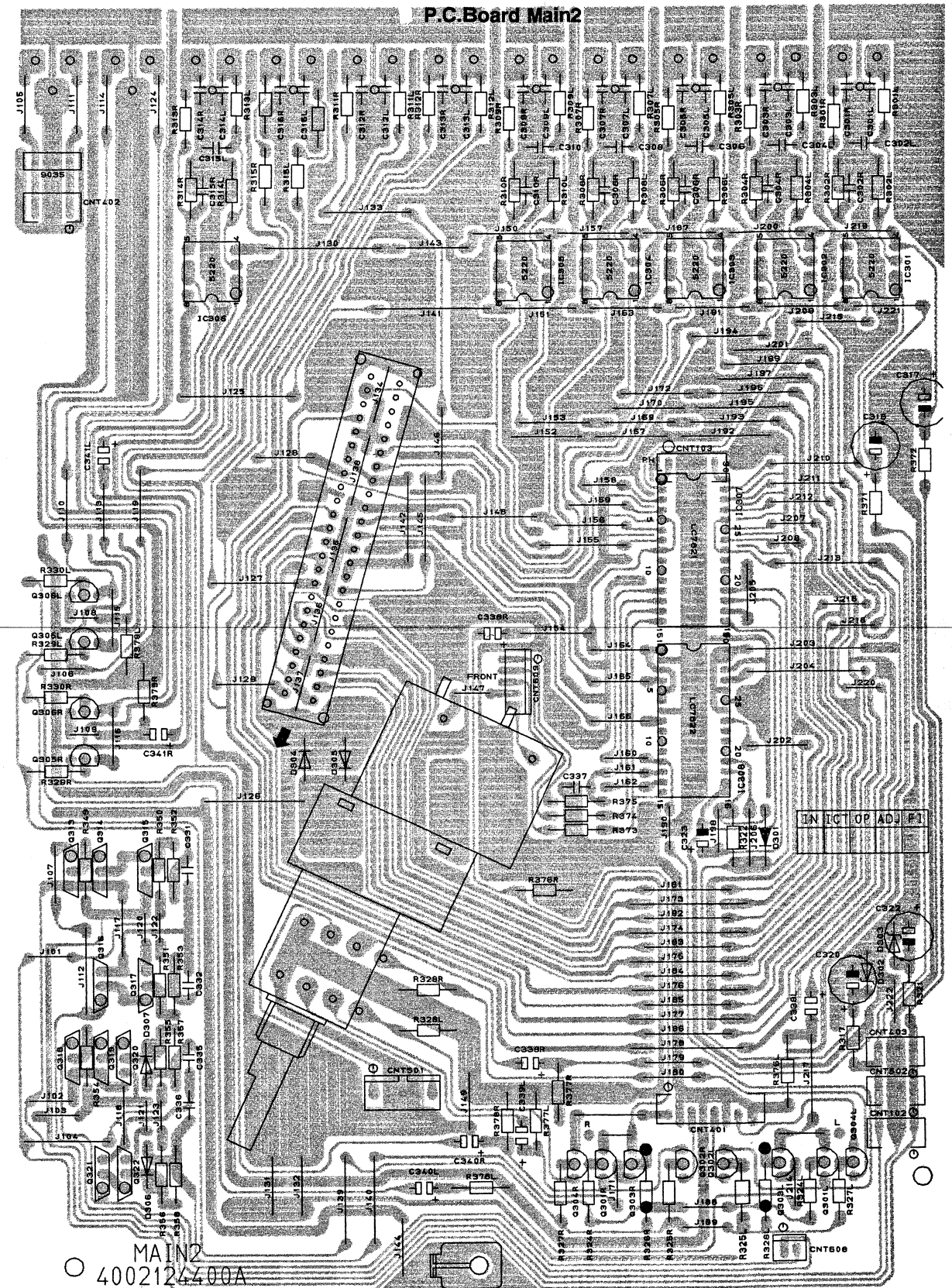
P.C.Board Power Supply



P.C.Board Speaker A



P.C.Board Main2



ELECTRICAL PARTS LIST

PRODUCT SAFETY NOTICE: Products marked with \triangle have special characteristics important to safety. If you replace any of these components, read carefully the product safety notice in this manual. Don't degrade the safety of the product through improper servicing. Resistor/Capacitor Tolerance, D: ($\pm 0.5\%$), J: ($\pm 5\%$), K: ($\pm 10\%$), M: ($\pm 20\%$), Z: (+80, -20%)

Ref. No.	Parts No.	Description	Q'ty	Version	Ref. No.	Parts No.	Description	Q'ty	Version
P1	054021010027	Ass'y P.C.B Main1			D507 L/R	2258128002	1N4003, Rectifier	2	
51	4438304010	Jack RCA (2P), Gold	2		D508 L/R	2258128002	1N4003, Rectifier	2	
59	7505206210	H/Sink, Regulator TR.	8		D510 L/R	2058322101	1N4148, Switching	2	
IC101/IC102	2168215001	M5220P, OP Amp	2		D511 L/R	2058322101	1N4148, Switching	2	
IC201	2168215001	M5220P, OP Amp	1		D525 L/R	2058322101	1N4148, Switching	2	
IC502 L/R	2168215001	M5220P, OP Amp	2		D702 L/R	2058322101	1N4148, Switching	2	
IC901	2168200105	LM833N	1		D703 L/R	2058322101	1N4148, Switching	2	
Q101 L/R	2208606107	KTC2229Y/KTC3206, NPN Silicon	2		D901 L/R	2058322101	1N4148, Switching	2	
Q102 L/R	2208206102	KTA949Y/KTA1024, PNP Silicon	2		D902 L/R	2058322101	1N4148, Switching	2	
Q103 L/R	2218207106	FET 2SK117Y	2		D903 L/R	2258599109	Zener, UZ 15.0BSC	2	
Q104 L/R	2218207106	FET 2SK117Y	2		D904 L/R	2258599109	Zener, UZ 15.0BSC	2	
Q105 L/R	2218207106	FET 2SK117Y	2		R101 L/R	3069102270	Carbon Film 1 kohm 1/4 W J	2	
Q106/Q107	2208622109	DTC144E	2		R102 L/R	3069473270	Carbon Film 47 kohm 1/4 W J	2	
Q108	2208222105	DTA114YS	1		R103 L/R	3069564270	Carbon Film 560 kohm 1/4 W J	2	
Q109	2208622109	DTC144E	1		R104 L/R	3069564270	Carbon Film 560 kohm 1/4 W J	2	
Q110	2208222105	DTA114YS	1		R105 L/R	3069443270	Carbon Film 43 kohm 1/4 W J	2	
Q111/Q112	2208622109	DTC144E	2		R106 L/R	3069751270	Carbon Film 750 ohm 1/4 W J	2	
Q113	2208222105	DTA114YS	1		R107 L/R	3069151270	Carbon Film 150 ohm 1/4 W J	2	
Q114	2208622109	DTC144E	1		R108 L/R	3069151270	Carbon Film 150 ohm 1/4 W J	2	
Q115	2208222105	DTA114YS	1		R109 L/R	3069393270	Carbon Film 39 kohm 1/4 W J	2	
Q201 L/R	2008607114	2SC3329GR	2		R110 L/R	3069393270	Carbon Film 39 kohm 1/4 W J	2	
Q202 L/R	2008607114	2SC3329GR	2		R111 L/R	3069150270	Carbon Film 15 ohm 1/4 W J	2	
Q203 L/R	2008207107	2SA1316GR	2		R112 L/R	3069150270	Carbon Film 15 ohm 1/4 W J	2	
Q204 L/R	2008207107	2SA1316GR	2		R113 L/R	3069103270	Carbon Film 10 kohm 1/4 W J	2	
Q205 L/R	2208606107	KTC2229Y/KTC3206, NPN Silicon	2		R115 L/R	3069472270	Carbon Film 4.7 kohm 1/4 W J	2	
Q206 L/R	2208206102	KTA949Y/KTA1024, PNP Silicon	2		R116 L/R	3069243270	Carbon Film 2.4 kohm 1/4 W J	2	
Q207 L/R	2218207106	FET 2SK117Y	2		R117 L/R	3069684270	Carbon Film 680 kohm 1/4 W J	2	
Q501 L/R	2018217700	FET 2SK332F	2		R118 L/R	3069472270	Carbon Film 4.7 kohm 1/4 W J	2	
Q502 L/R	2228406120	BKTC2235/KTC1027, PNP	2		R119-R122	3069470270	Carbon Film 47 ohm 1/4 W J	4	
Q503 L/R	2208606107	KTC2229Y/KTC3206, NPN Silicon	2		R123 L/R	3069106270	Carbon Film 10 Mohm 1/4 W J	2	
Q504 L/R	2208606107	KTC2229Y/KTC3206, NPN Silicon	2		R124 L/R	3069106270	Carbon Film 10 Mohm 1/4 W J	2	
Q505 L/R	2028016100	2SA1859A-Y	2		R125 L/R	3069106270	Carbon Film 10 Mohm 1/4 W J	2	
Q506 L/R	2028316100	2SC4883A-Y	2		R126	3069103270	Carbon Film 10 kohm 1/4 W J	1	
Q507 L/R	2008622110	2SC4137, NPN Bise	2		R127/R128	3069104270	Carbon Film 100 kohm 1/4 W J	2	
Q510 L/R	2028316100	2SC4883A-Y	2		R129 L/R	3069103270	Carbon Film 10 kohm 1/4 W J	2	
Q511 L/R	2028016100	2SA1859A-Y	2		R130	3069105270	Carbon Film 1 Mohm 1/4 W J	1	
Q512 L/R	2028416122	2SC3519A-Y, Power	2		R131	3069103270	Carbon Film 10 kohm 1/4 W J	1	
Q513 L/R	2028116108	2SA1386A-Y, Power	2		R132/R133	3069104270	Carbon Film 100 kohm 1/4 W J	2	
Q514 L/R	2028416122	2SC3519A-Y, Power	2		R134-R136	3069105270	Carbon Film 1 Mohm 1/4 W J	3	
Q515 L/R	2028116108	2SA1386A-Y, Power	2		R201 L/R	3069122270	Carbon Film 1.2 kohm 1/4 W J	2	
Q516 L/R	2208606112	KTD1302, NPN	2		R202 L/R	3069680270	Carbon Film 68 ohm 1/4 W J	2	
Q517 L/R	2228406120	BKTC2235/KTC1027, PNP	2		R203 L/R	3069911270	Carbon Film 910 ohm 1/4 W J	2	
Q518 L/R	2208606107	KTC2229Y/KTC3206, NPN Silicon	2		R204 L/R	3069103270	Carbon Film 10 kohm 1/4 W J	2	
Q519 L/R	2208606107	KTC2229Y/KTC3206, NPN Silicon	2		R205 L/R	3069473270	Carbon Film 47 kohm 1/4 W J	2	
Q901 L/R	2018217700	FET 2SK332F	2		R206 L/R	3069473270	Carbon Film 47 kohm 1/4 W J	2	
Q902 L/R	2208606107	KTC2229Y/KTC3206, NPN Silicon	2		R207 L/R	3069562270	Carbon Film 5.6 kohm 1/4 W J	2	
Q903 L/R	2208606107	KTC2229Y/KTC3206, NPN Silicon	2		R208 L/R	3069562270	Carbon Film 5.6 kohm 1/4 W J	2	
Q904 L/R	2208606107	KTC2229Y/KTC3206, NPN Silicon	2		R209 L/R	3069100270	Carbon Film 10 ohm 1/4 W J	2	
Q905 L/R	2208206102	KTA949Y/KTA1024, PNP Silicon	2		R210 L/R	3069470270	Carbon Film 47 ohm 1/4 W J	2	
D101 L/R	2058322101	1N4148, Switching	2		R211 L/R	3069473270	Carbon Film 47 kohm 1/4 W J	2	
D102 L/R	2058322101	1N4148, Switching	2		R212 L/R	3069564270	Carbon Film 560 kohm 1/4 W J	2	
D201 L/R	2058322101	1N4148, Switching	2		R213 L/R	3069564270	Carbon Film 560 kohm 1/4 W J	2	
D202 L/R	2058322101	1N4148, Switching	2		R214 L/R	3069433270	Carbon Film 43 kohm 1/4 W J	2	
D502 L/R	2258599123	Zener, UZ 8.2BSC	2		R215 L/R	3069391270	Carbon Film 390 ohm 1/4 W J	2	
D504 L/R	2258599115	Zener, UZ 27.0BSC	2		R216 L/R	3069151270	Carbon Film 150 ohm 1/4 W J	2	
D505 L/R	2058322101	1N4148, Switching	2		R217 L/R	3069151270	Carbon Film 150 ohm 1/4 W J	2	
D506 L/R	2058322101	1N4148, Switching	2		R218 L/R	3069393270	Carbon Film 39 kohm 1/4 W J	2	

Ref. No.	Parts No.	Description	Q'ty	Version	Ref. No.	Parts No.	Description	Q'ty	Version
R219 L/R	3069393270	Carbon Film 39 kohm 1/4 W J	2		R708 L/R	3069104270	Carbon Film 100 kohm 1/4 W J	2	
R220 L/R	3069150270	Carbon Film 15 ohm 1/4 W J	2		R902 L/R	3069473270	Carbon Film 47 kohm 1/4 W J	2	
R221 L/R	3069150270	Carbon Film 15 ohm 1/4 W J	2		R903 L/R	3069102270	Carbon Film 1 kohm 1/4 W J	2	
R223 L/R	3069472270	Carbon Film 4.7 kohm 1/4 W J	2		R905 L/R	3069470270	Carbon Film 47 ohm 1/4 W J	2	
R224/R225	3069152270	Carbon Film 1.5 kohm 1/4 W J	2		R906 L/R	3069470270	Carbon Film 47 ohm 1/4 W J	2	
R226/R227	3069470270	Carbon Film 47 ohm 1/4 W J	2		R907 L/R	3069152270	Carbon Film 1.5 kohm 1/4 W J	2	
R229 L/R	3069106270	Carbon Film 10 Mohm 1/4 W J	2		R908 L/R	3069152270	Carbon Film 1.5 kohm 1/4 W J	2	
R506 L/R	3069473270	Carbon Film 47 kohm 1/4 W J	2		R909 L/R	3069123270	Carbon Film 12 kohm 1/4 W J	2	
R507 L/R	3069474270	Carbon Film 470 kohm 1/4 W J	2		R910 L/R	3069622270	Carbon Film 6.2 kohm 1/4 W J	2	
R508 L/R	3069104270	Carbon Film 100 kohm 1/4 W J	2		R911 L/R	3069302270	Carbon Film 3 kohm 1/4 W J	2	
R509 L/R	3069471270	Carbon Film 470 ohm 1/4 W J	2		R912	3069121270	Carbon Film 120 ohm 1/4 W J	1	
R510 L/R	3069563270	Carbon Film 56 kohm 1/4 W J	2		R914 L/R	3069821270	Carbon Film 820 ohm 1/4 W J	2	
R511 L/R	3069470270	Carbon Film 47 ohm 1/4 W J	2		R915 L/R	3069472270	Carbon Film 4.7 kohm 1/4 W J	2	
R512 L/R	3069470270	Carbon Film 47 ohm 1/4 W J	2		R916 L/R	3069103270	Carbon Film 10 kohm 1/4 W J	2	
R513 L/R	3069512270	Carbon Film 5.1 kohm 1/4 W J	2		R917 L/R	3069151270	Carbon Film 150 ohm 1/4 W J	2	
R514 L/R	3069391270	Carbon Film 390 ohm 1/4 W J	2		R918 L/R	3069151270	Carbon Film 150 ohm 1/4 W J	2	
R515 L/R	3069273270	Carbon Film 27 kohm 1/4 W J	2		R919 L/R	3069103270	Carbon Film 10 kohm 1/4 W J	2	
R516 L/R	3069152270	Carbon Film 1.5 kohm 1/4 W J	2		R920 L/R	3069150270	Carbon Film 15 ohm 1/4 W J	2	
R517 L/R	3069152270	Carbon Film 1.5 kohm 1/4 W J	2		R921 L/R	3069150270	Carbon Film 15 ohm 1/4 W J	2	
R518 L/R	3029222572	Metal Film 2.2 kohm 2 W J	2		R924	3029221472	Metal Film 220 ohm 1 W J	1	
R519 L/R	3069273270	Carbon Film 27 kohm 1/4 W J	2		R925 L/R	3069102270	Carbon Film 1 kohm 1/4 W J	2	
R520 L/R	3069102270	Carbon Film 1 kohm 1/4 W J	2		R954	3069221472	Carbon Film 220 ohm 1/4 W J	1	
R521 L/R	3069561270	Carbon Film 560 ohm 1/4 W J	2		C100	2579473530	Ceramic Disc 0.047 uF 50 V J	1	
R522 L/R	3069102270	Carbon Film 1 kohm 1/4 W J	2		C101 L/R	3579220130	Ceramic Disc 22 pF 50 V J	2	
R523 L/R	3029339472	Metal Film 3.3 ohm 1 W J	2		C102 L/R	3579680130	Ceramic Disc 68 pF 50 V J	2	
R524 L/R	3029339472	Metal Film 3.3 ohm 1 W J	2		C103 L/R	3479247964	Electrolytic AH 4.7 uF 35 V M	2	
R525 L/R	3069273270	Carbon Film 27 kohm 1/4 W J	2		C104 L/R	3579100030	Ceramic Disc 10 pF 50 V J	2	
R527 L/R	3029339472	Metal Film 3.3 ohm 1 W J	2		C105 L/R	3579222630	Ceramic Disc 2200 pF 50 V J	2	
R528 L/R	3029339472	Metal Film 3.3 ohm 1 W J	2		C106 L/R	3679562120	Mylar 0.0056 uF 100 V J	2	
R529 L/R	3029339472	Metal Film 3.3 ohm 1 W J	2		C107 L/R	3679182120	Mylar 0.0018 uF 100 V J	2	
R530 L/R	3029339472	Metal Film 3.3 ohm 1 W J	2		C108 L/R	3479310121	Electrolytic SG 100 uF 10 V M	2	
R531 L/R	3069273270	Carbon Film 27 kohm 1/4 W J	2		C109 L/R	3479210974	Electrolytic AH 1 uF 50 V M	2	
R540 L/R	3059039776	Cement 0.39 ohm 5 W J	2		C110 L/R	3479210974	Electrolytic AH 1 uF 50 V M	2	
R541 L/R	3059039776	Cement 0.39 ohm 5 W J	2		C111 L/R	3479247964	Electrolytic AH 4.7 uF 35 V M	2	
R546 L/R	3069183270	Carbon Film 18 kohm 1/4 W J	2		C112 L/R	3579221130	Ceramic Disc 220 pF 50 V J	2	
R547 L/R	3069183270	Carbon Film 18 kohm 1/4 W J	2		C113 L/R	3479233871	Electrolytic SA 0.33 uF 50 V J	2	
R548 L/R	3069183270	Carbon Film 18 kohm 1/4 W J	2		C114 L/R	3679333120	Mylar 0.033 uF 100 V J	2	
R549 L/R	3069472270	Carbon Film 4.7 kohm 1/4 W J	2		C115 L/R	3679333120	Mylar 0.033 uF 100 V J	2	
R550 L/R	3069242270	Carbon Film 2.4 kohm 1/4 W J	2		C116 L/R	3479247971	Electrolytic SA 4.7 uF 50 V M	2	
R551 L/R	3069472270	Carbon Film 4.7 kohm 1/4 W J	2		C117-C120	3479310141	Electrolytic SG 100 uF 25 V M	4	
R553 L/R	3069332270	Carbon Film 3.3 kohm 1/4 W J	2		C121-C124	3479647870	Electrolytic NP 0.47 uF 50 V M	4	
R556 L/R	3069470272	Carbon Film 47 ohm 1/4 W J	2		C125-C128	3579103530	Ceramic Disc 0.01 uF 50 V Z	4	D
R557 L/R	3069470272	Carbon Film 47 ohm 1/4 W J	2		C200	3579473530	Ceramic Disc 0.047 uF 50 V Z	1	
R561 L/R	3069390270	Carbon Film 39 ohm 1/4 W J	2		C201 L/R	3579472530	Ceramic Disc 0.0047 uF 50 V Z	2	D
R562 L/R	3069390270	Carbon Film 39 ohm 1/4 W J	2		C202 L/R	3579331130	Ceramic Disc 330 pF 50 V J	2	
R563	3069224270	Carbon Film 220k ohm 1/4 W J	1		C203 L/R	3579472530	Ceramic Disc 0.0047 uF 50 V Z	2	
R564	3069105270	Carbon Film 1 Mohm 1/4 W J	1		C205 L/R	3479210124	Electrolytic AH 100 uF 10 V M	2	
R565 L/R	3069101270	Carbon Film 100 ohm 1/4 W J	2		C206 L/R	3479210124	Electrolytic AH 100 uF 10 V M	2	
R566 L/R	3069101270	Carbon Film 100 ohm 1/4 W J	2		C208 L/R	3579681130	Ceramic Disc 680 pF 50 V J	2	
R567 L/R	3069102270	Carbon Film 1 kohm 1/4 W J	2		C209 L/R	3479222034	Electrolytic AH 22 uF 16 V M	2	
R569 L/R	3069101270	Carbon Film 100 ohm 1/4 W J	2		C210 L/R	3479222034	Electrolytic AH 22 uF 16 V M	2	
R570 L/R	3069101270	Carbon Film 100 ohm 1/4 W J	2		C211 L/R	3679102120	Mylar 0.001 uF 100 V J	2	
R571 L/R	3069271270	Carbon Film 270 ohm 1/4 W J	2		C212 L/R	3479247964	Electrolytic AH 4.7 uF 35 V M	2	
R572 L/R	3029330472	Metal Film 33 ohm 1 W J	2		C213 L/R	3579100030	Ceramic Disc 10 pF 50 V J	2	
R573 L/R	3029330472	Metal Film 33 ohm 1 W J	2		C214 L/R	3579222530	Ceramic Disc 0.0022 pF 50 V Z	2	
R580 L/R	3069220270	Carbon Film 22 ohm 1/4 W J	2		C215 L/R	3679562120	Mylar 0.0056 uF 100 V J	2	
R581 L/R	3069220270	Carbon Film 22 ohm 1/4 W J	2		C216 L/R	3679182120	Mylar 0.0018 uF 100 V J	2	
R586 L/R	3069272270	Carbon Film 2.7 kohm 1/4 W J	2		C217 L/R	3479310121	Electrolytic SG 100 uF 10 V M	2	
R587 L/R	3069202270	Carbon Film 2 kohm 1/4 W J	2		C218 L/R	3479210974	Electrolytic AH 1 uF 50 V M	2	
R588 L/R	3069103270	Carbon Film 10 kohm 1/4 W J	2		C219 L/R	3479210974	Electrolytic AH 1 uF 50 V M	2	
R702 L/R	3069392270	Carbon Film 3.9 kohm 1/4 W J	2		C220 L/R	3479247964	Electrolytic AH 4.7 uF 35 V M	2	
R703 L/R	3069822270	Carbon Film 8.2 kohm 1/4 W J	2		C221 L/R	3579221130	Ceramic Disc 220 pF 50 V J	2	
R705 L/R	3069104270	Carbon Film 100 kohm 1/4 W J	2		C222/C223	3479322141	Electrolytic SG 22 uF 25 V M	2	
R706 L/R	3069104270	Carbon Film 100 kohm 1/4 W J	2		C224/C225	3479310141	Electrolytic SG 100 uF 25 V M	2	
R707 L/R	3069104270	Carbon Film 100 kohm 1/4 W J	2		C507 L/R	3479247964	Electrolytic AH 4.7 uF 35 V M	2	

Ref. No.	Parts No.	Description	Q'ty	Version	Ref. No.	Parts No.	Description	Q'ty	Version
C508 L/R	3579101130	Ceramic Disc	100 pF	50 V J	2	P4-2 054021010037	Ass'y P.C.B ST/BY Key		
C509 L/R	3479100710	Electrolytic SG	10 uF	50 V M	2	62	4658003710	Switch Tact	3
C511 L/R	3409347139	Electrolytic SG	470 uF	16 V M	2	Q611/Q612	2208606104	KTC1815/BKTC3198, NPN Silicon	2
C512 L/R	3409247099	Electrolytic SA	47 uF	100 V M	2	Q621	2208606104	KTC1815/BKTC3198, NPN Silicon	1
C513 L/R	3579270130	Ceramic Disc	27 pF	50 V J	2	LED609	2371124502	LED, SLR-54YCF03	1
C514 L/R	3579561130	Ceramic Disc	560 pF	50 V J	2	LED610	2371124502	LED, SLR-54YCF03	1
C515 L/R	3579270130	Ceramic Disc	27 pF	50 V J	2	LED611	2371124702	LED, SLR-54URCF03	1
C516 L/R	3579809030	Ceramic Disc	8 pF	50 V D	2	R643-R645	3069104270	Carbon Film 100 kohm 1/4 W J	3
C517 L/R	3579180130	Ceramic Disc	18 pF	50 V J	2	R646	3069472270	Carbon Film 4.7 kohm 1/4 W J	1
C518 L/R	3579471130	Ceramic Disc	471 pF	50 V J	2	R647	3069473270	Carbon Film 47 kohm 1/4 W J	1
C521 L/R	3579151130	Ceramic Disc	150 pF	50 V J	2	R648	3069472270	Carbon Film 4.7 kohm 1/4 W J	1
C522 L/R	3579151130	Ceramic Disc	150 pF	50 V J	2	R649	3069473270	Carbon Film 47 kohm 1/4 W J	1
C530 L/R	3579330130	Ceramic Disc	33 pF	50 V J	2	R650/R651	3069132270	Carbon Film 1.3 kohm 1/4 W J	2
C531 L/R	3479322071	Electrolytic SG	22 uF	50 V M	2	R671	3069472270	Carbon Film 4.7 kohm 1/4 W J	1
C532 L/R	3479322071	Electrolytic SG	22 uF	50 V M	2	R672	3069473270	Carbon Film 47 kohm 1/4 W J	1
C535 L/R	3479347025	Electrolytic SG	47 uF	25 V M	2	R673	3069331270	Carbon Film 330 ohm 1/4 W J	1
C536 L/R	3479347025	Electrolytic SG	47 uF	25 V M	2	CNT604	4428517110	Wafer 12P	1
C540 L/R	3479210997	Electrolytic SA	1 uF	100 V M	2	IR601	2408000133	KRM-40, Remote Sensor	1
C541 L/R	3479210997	Electrolytic SA	1 uF	100 V M	2				
C901 L/R	3479247964	Electrolytic AH	4.7 uF	35 V M	2	P4-3 054021010038	Ass'y P.C.B Headphone		
C902 L/R	3579101130	Ceramic Disc	100 pF	50 V J	2	40	4438005020	Jack Phone	1
C903	3479322141	Electrolytic SG	22 uF	25 V M	1	R544 L/R	3029471572	Metal Film 470 ohm 2 W J	2
C905 L/R	3479310121	Electrolytic SG	100 uF	10 V M	2	R545 L/R	3029681472	Metal Film 680 ohm 1 W J	2 D
C906 L/R	3579100030	Ceramic Disc	10 pF	50 V J	2	C529 L/R	3079472530	Ceramic Disc 4700 pF	2 D
C907 L/R	3479210974	Electrolytic AH	1 uF	50 V M	2	CNT708	4428529410	Wafer 4P	1
C908 L/R	3479210974	Electrolytic AH	1 uF	50 V M	2				
C911/C912	3409333149	Electrolytic SG	330 uF	25 V M	2	P4 054021010035	Ass'y P.C.B Front		
L101 L/R	2648601470	Coil Inductor 50uH			2	42	3208059910	VR (100 kAx2)	2
L201 L/R	2648601470	Coil Inductor 50uH			2	43	3208060010	VR (250 kMN)	1
CNT101	436204323132	Lead Ass'y 4P 320 mm			1	61	4658004210	Switch Tact	7
CNT102	436204143132	Lead Ass'y 4P 140 mm			1	IC401	2168215001	M5220P, OP Amp	1
CNT103	435205288332	Lead Ass'y 5P 280 mm			1	IC601	2138309171	LSC412224P DWP114	1
CNT501	435205168331	Lead Ass'y 5P 160 mm			1	IC602	2138009115	MC14094	1
CNT502	436204223132	Lead Ass'y 4P 220 mm			1	IC603/IC604	2168007204	TA7291S	2
CNT607	436203103132	Lead Ass'y 3P 100 mm			1	Q401 L/R	2208206104	KTA970BL, PNP Silicon	2
CNT703	436205303132	Lead Ass'y 5P 300 mm			1	Q402 L/R	2208606108	KTC2240BL/BKTC3200, NPN Silicon	2
P3	4359894352	Lead Ass'y 2P			1	Q403/Q404	2208606104	KTC1815/BKTC3198, NPN Silicon	2
P4	4359894237	Lead Ass'y 2P			1	Q601	2208606104	KTC1815/BKTC3198, NPN Silicon	1
P9	4359894352	Lead Ass'y 2P			1	Q603-Q608	2208622106	DTC114YS	6
P10	4359894237	Lead Ass'y 2P			1	Q609	2208606104	KTC1815/BKTC3198, NPN Silicon	1
P11 L	4359785338	Lead Ass'y 2P 380 mm			1	Q610	2208206105	DTA114YS	1
P11 R	4359785226	Lead Ass'y 2P 260 mm			1	Q623-Q626	2208622108	DTC114TS	4
P12 L	4359785338	Lead Ass'y 2P 380 mm			1	Q627/Q628	2208222105	DTA114YS	2
P12 R	4359785226	Lead Ass'y 2P 260 mm			1	D401/D402	2258128002	1N4003, Rectifier	2
P14 L	4359006928	Lead Ass'y 1P 280 mm			1	D601/D602	2058322101	1N4148, Switching	2
P14 R	4359006216	Lead Ass'y 1P 160 mm			1	D622	2058322101	1N4148, Switching	1
PB501 L/R	6165141410	Power Bend (A)			2	D671/D672	2058322101	1N4148, Switching	2
PB502 L/R	6165141410	Power Bend (A)			2	D680	2058322101	1N4148, Switching	1
PB503 L/R	6165141410	Power Bend (A)			2	LED601	2371124502	LED, SLR-54YCF03	1
PB504 L/R	6165141410	Power Bend (A)			2	LED602	2371124502	LED, SLR-54YCF03	1
PB505 L/R	6165141410	Power Bend (A)			2	LED603	2371124502	LED, SLR-54YCF03	1
PB506 L/R	6165141410	Power Bend (A)			2	LED604	2371124502	LED, SLR-54YCF03	1
						LED606	2371124502	LED, SLR-54YCF03	1
P4-1 054021010036	Ass'y P.C.B Function Selector					RLY401	5528001040	Relay, RZ-24 24V DC	1
45	4608003010	SW Selector SRBU0622			1	RLY402	5528001040	Relay, RZ-24 24V DC	1
47	4618008810	SW Selector SRBAA260			1	RES601	3938131570	Resonator, CST4.00MGW	1
D603-D611	2058322101	1N4148, Switching			9	R401 L/R	3069104270	Carbon Film 100 kohm 1/4 W J	2
R652	3069222270	Carbon Film 2.2 kohm 1/4 W J			1	R402 L/R	3069221270	Carbon Film 220 ohm 1/4 W J	2
R653	3069104270	Carbon Film 100 kohm 1/4 W J			1	R403 L/R	3069103270	Carbon Film 10 kohm 1/4 W J	2
C608	3579103530	Ceramic Disc 0.01 uF 50 V Z			1	R404 L/R	3069103270	Carbon Film 10 kohm 1/4 W J	2
CNT605	4428516710	Wafer 8P			1	R405 L/R	3069104270	Carbon Film 100 kohm 1/4 W J	2
CNT606	4428517010	Wafer 11P			1	R406 L/R	3069223270	Carbon Film 22 kohm 1/4 W J	2
CNT607	4428516210	Wafer 3P			1	R407 L/R	3069392270	Carbon Film 3.9 kohm 1/4 W J	2
CNT608	4428516110	Wafer 2P			1	R408 L/R	3069683270	Carbon Film 68 kohm 1/4 W J	2
CNT609	4428516410	Wafer 5P			1	R409 L/R	3069222270	Carbon Film 2.2 kohm 1/4 W J	2

Ref. No.	Parts No.	Description	Q'ty	Version
R410 L/R	3069105270	Carbon Film 1 Mohm 1/4 W J	2	
R411 L/R	3069823270	Carbon Film 82 kohm 1/4 W J	2	
R412 L/R	3069821270	Carbon Film 820 ohm 1/4 W J	2	
R413 L/R	3069753270	Carbon Film 75 kohm 1/4 W J	2	
R414 L/R	3069154270	Carbon Film 150 kohm 1/4 W J	2	
R415 L/R	3069332270	Carbon Film 3.3 kohm 1/4 W J	2	
R416 L/R	3069182270	Carbon Film 1.8 kohm 1/4 W J	2	
R417 L/R	3069392270	Carbon Film 3.9 kohm 1/4 W J	2	
R418 L/R	3069223270	Carbon Film 22 kohm 1/4 W J	2	
R419 L/R	3069152270	Carbon Film 1.5 kohm 1/4 W J	2	
R420 L/R	3069122270	Carbon Film 1.2 kohm 1/4 W J	2	
R421 L/R	3069392270	Carbon Film 3.9 kohm 1/4 W J	2	
R422 L/R	3069471270	Carbon Film 470 ohm 1/4 W J	2	
R423 L/R	3069101270	Carbon Film 100 ohm 1/4 W J	2	
R424-R427	3069470270	Carbon Film 47 ohm 1/4 W J	4	
R428	3069472270	Carbon Film 4.7 kohm 1/4 W J	1	
R429	3069102270	Carbon Film 1 kohm 1/4 W J	1	
R430	3069472270	Carbon Film 4.7 kohm 1/4 W J	1	
R431	3069102270	Carbon Film 1 kohm 1/4 W J	1	
R432 L/R	3069104270	Carbon Film 100 kohm 1/4 W J	2	
R433 L/R	3069103270	Carbon Film 10 kohm 1/4 W J	2	
R434 L/R	3069103270	Carbon Film 10 kohm 1/4 W J	2	
R601	3069103270	Carbon Film 10 kohm 1/4 W J	1	
R602	3069102270	Carbon Film 1 kohm 1/4 W J	1	
R606	3069272270	Carbon Film 2.7 kohm 1/4 W J	1	
R607	3069153270	Carbon Film 15 kohm 1/4 W J	1	
R608	3069512270	Carbon Film 5.1 kohm 1/4 W J	1	
R609	3069822270	Carbon Film 8.2 kohm 1/4 W J	1	
R622-R627	3069132270	Carbon Film 1.3 kohm 1/4 W J	6	
R628	3069223270	Carbon Film 22 kohm 1/4 W J	1	
R629	3069224270	Carbon Film 220 kohm 1/4 W J	1	
R630	3069472270	Carbon Film 4.7 kohm 1/4 W J	1	
R632	3069911270	Carbon Film 910 ohm 1/4 W J	1	
R633	3069103270	Carbon Film 10 kohm 1/4 W J	1	
R634-R638	3069332270	Carbon Film 3.3 kohm 1/4 W J	6	
R639/R640	3069334270	Carbon Film 330 kohm 1/4 W J	2	
R641	3069104270	Carbon Film 100 kohm 1/4 W J	1	
R642	3069106270	Carbon Film 10 Mohm 1/4 W J	1	
R676-R678	3069334270	Carbon Film 330 kohm 1/4 W J	3	
R680/R681	3069472270	Carbon Film 4.7 kohm 1/4 W J	2	
R682	3069224270	Carbon Film 220 kohm 1/4 W J	1	
R683	3069472270	Carbon Film 4.7 kohm 1/4 W J	1	
C401 L/R	3479222974	Electrolytic AH 2.2 uF 50 V M	2	
C402 L/R	3579470130	Ceramic Disc 47 pF 50 V J	2	
C403 L/R	3479210064	Electrolytic AH 10 uF 35 V M	2	
C404 L/R	3479210064	Electrolytic AH 10 uF 35 V M	2	
C405 L/R	3679153120	Mylar 0.015 uF 100 V J	2	
C406 L/R	3679823120	Mylar 0.082 uF 100 V J	2	
C407 L/R	3679332120	Mylar 0.0033 uF 100 V J	2	
C408 L/R	3679183120	Mylar 0.018 uF 100 V J	2	
C409 L/R	3479247964	Electrolytic AH 4.7 uF 35 V M	2	
C410 L/R	3479210071	Electrolytic SA 10 uF 50 V M	2	
C411 L/R	3579391130	Ceramic Disc 390 pF 50 V J	2	
C412 L/R	3479347041	Electrolytic SG 47 uF 25 V M	2	
C413 L/R	3479210064	Electrolytic AH 10 uF 35 V M	2	
C414 L/R	3679104297	Mylar 0.1 uF 63 V K	2	
C415 L/R	3679823120	Mylar 0.082 uF 100 V J	2	
C416 L/R	3479210971	Electrolytic SA 1 uF 50 V M	2	
C417-C420	3479310141	Electrolytic SG 100 uF 25 V M	4	
C421 L/R	3479210064	Electrolytic AH 10 uF 35 V M	2	
C601	3479210071	Electrolytic SA 10 uF 50 V M	1	
C602	3479210971	Electrolytic SA 1 uF 50 V M	1	
C603/C604	3479347041	Electrolytic SG 47 uF 25 V M	2	
C607	3438147312	AC-310-301G4733SR5	M 1	
C615-C618	3479347041	Electrolytic SG 47 uF 25 V M	4	

Ref. No.	Parts No.	Description	Q'ty	Version
CNT401	435208458342	Lead Assy 8P 450 mm	1	
CNT402	435204458345	Lead Assy 4P 450 mm	1	
CNT403	436204453132	Lead Assy 4P 450 mm	1	
CNT602	436211142182	Lead Assy 11P 140 mm	1	
CNT604	436212142132	Lead Assy 12P 140 mm	1	
CNT605	436208143132	Lead Assy 8P 140 mm	1	
CNT606	436211143132	Lead Assy 11P 140 mm	1	
CNT670	436202103132	Lead Assy 2P 100 mm	1	
P2	054021010031	Ass'y P.C.B Main	2	
44	3208064810	VR Main (50 kAx2)	1	
46	4618008710	SW Selector SRBU2621	1	
52	4438304110	Jack RCA (4P), Gold	1	
53	4438304210	Jack RCA (6P), Gold	3	
IC301-IC306	2168215001	M5220P, OP Amp	7	
IC307	2168017132	LC7821	1	
IC308	2168017139	LC7822, Analog SW	1	
Q301 L/R	2218207106	FET 2SK117Y	2	
Q302 L/R	2218207106	FET 2SK117Y	2	
Q303 L/R	2218207106	FET 2SK117Y	2	
Q304 L/R	2218207106	FET 2SK117Y	2	
Q305 L/R	2218207106	FET 2SK117Y	2	
Q306 L/R	2218207106	FET 2SK117Y	2	
Q313-Q322	2208622109	DTC144E	10	
D301	2058322101	1N4148, Switching	1	
D302/D303	2058599127	Zener, 18 V	2	
D304-D307	2058322101	1N4148, Switching	4	
R301 L/R	3069102270	Carbon Film 1 kohm 1/4 W J	2	
R302 L/R	3069473270	Carbon Film 47 kohm 1/4 W J	2	
R303 L/R	3069102270	Carbon Film 1 kohm 1/4 W J	2	
R304 L/R	3069473270	Carbon Film 47 kohm 1/4 W J	2	
R305 L/R	3069102270	Carbon Film 1 kohm 1/4 W J	2	
R306 L/R	3069473270	Carbon Film 47 kohm 1/4 W J	2	
R307 L/R	3069102270	Carbon Film 1 kohm 1/4 W J	2	
R308 L/R	3069473270	Carbon Film 47 kohm 1/4 W J	2	
R309 L/R	3069102270	Carbon Film 1 kohm 1/4 W J	2	
R310 L/R	3069473270	Carbon Film 47 kohm 1/4 W J	2	
R311 L/R	3069102270	Carbon Film 1 kohm 1/4 W J	2	
R312/R313	3069102270	Carbon Film 1 kohm 1/4 W J	2	
R314	3069473270	Carbon Film 47 kohm 1/4 W J	1	
R315	3069102270	Carbon Film 1 kohm 1/4 W J	1	
R317	3069331270	Carbon Film 330 ohm 1/4 W J	1	
R321	3069331270	Carbon Film 330 ohm 1/4 W J	1	
R322	3069104270	Carbon Film 100 kohm 1/4 W J	1	
R324 L/R	3069106270	Carbon Film 10 Mohm 1/4 W J	2	
R325 L/R	3069106270	Carbon Film 10 Mohm 1/4 W J	2	
R326 L/R	3069106270	Carbon Film 10 Mohm 1/4 W J	2	
R327 L/R	3069106270	Carbon Film 10 Mohm 1/4 W J	2	
R328 L/R	3069272270	Carbon Film 2.7 kohm 1/4 W J	2	
R329 L/R	3069106270	Carbon Film 10 Mohm 1/4 W J	2	
R330 L/R	3069106270	Carbon Film 10 Mohm 1/4 W J	2	
R349	3069103270	Carbon Film 10 kohm 1/4 W J	1	
R350/R351	3069104270	Carbon Film 100 kohm 1/4 W J	2	
R352/R353	3069334270	Carbon Film 330 kohm 1/4 W J	2	
R354	3069103270	Carbon Film 10 kohm 1/4 W J	1	
R355/R356	3069104270	Carbon Film 100 kohm 1/4 W J	2	
R357/R358	3069334270	Carbon Film 330 kohm 1/4 W J	2	
R371/R372	3069220270	Carbon Film 22 ohm 1/4 W J	2	
R373-R375	3069102270	Carbon Film 1 kohm 1/4 W J	3	
R376 L/R	3069103270	Carbon Film 10 kohm 1/4 W J	2	
R377 L/R	3069103270	Carbon Film 10 kohm 1/4 W J	2	
R378 L/R	3069103270	Carbon Film 10 kohm 1/4 W J	2	
R379 L/R	3069103270	Carbon Film 10 kohm 1/4 W J	2	
C301 L/R	3579101130	Ceramic Disc 100 pF 50 V J	2	
C302 L/R	3579101130	Ceramic Disc 100 pF 50 V J	2	

Ref. No.	Parts No.	Description	Q'ty	Version	Ref. No.	Parts No.	Description	Q'ty	Version	
C303 L/R	3579101130	Ceramic Disc	100 pF	50 V J	2	F807	△ 5508302035	Fuse, TL 1 A	250 V	1 D
C304 L/R	3579101130	Ceramic Disc	100 pF	50 V J	2	△ 5508202030	Fuse, NB, 1 A	250 V	1 Dom	
C305 L/R	3579101130	Ceramic Disc	100 pF	50 V J	2	F808	△ 5508301134	Fuse, TL, 0.2 A	250 V	1 D
C306 L/R	3579101130	Ceramic Disc	100 pF	50 V J	2	△ 5508201230	Fuse, NB, 250 mA	250 V	1 Dom	
C307 L/R	3579101130	Ceramic Disc	100 pF	50 V J	2	F811	△ 5508302035	Fuse, TL 1 A	250 V	1 D
C308 L/R	3579101130	Ceramic Disc	100 pF	50 V J	2	△ 5508202230	Fuse, NB, 1.5 A	250 V	1 Dom	
C309 L/R	3579101130	Ceramic Disc	100 pF	50 V J	2	F812	△ 5508302035	Fuse, TL 1 A	250 V	1 D
C310 L/R	3579101130	Ceramic Disc	100 pF	50 V J	2	△ 5508202230	Fuse, NB, 1.5 A	250 V	1 Dom	
C312 L/R	3579101130	Ceramic Disc	100 pF	50 V J	2	4255001010	Clip Fuse, PFC5000-0202		16	
C313 L/R	3579101130	Ceramic Disc	100 pF	50 V J	2	CNT101	4428516310	Wafer 4P		1
C314 L/R	3579101130	Ceramic Disc	100 pF	50 V J	2	CNT601	4428516110	Wafer 2P		1
C315 L/R	3579101130	Ceramic Disc	100 pF	50 V J	2	CNT602	4428517010	Wafer 11P		1
C316 L/R	3579101130	Ceramic Disc	100 pF	50 V J	2	CNT701	436204453132	Lead Assy 4P 450 mm		1
C317/C318	3479322141	Electrolytic SG	22 uF	25 V M	2	CNT707	436203403132	Lead Assy 3P 400 mm		1
C320	3479347041	Electrolytic SG	47 uF	25 V M	1	CNT801	4428508210	Wafer 2P		1
C322	3479347041	Electrolytic SG	47 uF	25 V M	1	CNT803	4428508210	Wafer 2P		1
C323	3479210971	Electrolytic SA	1 uF	50 V M	1	P3	4428525860	Wafer AC 1P		1
C331/C332	3479647870	Electrolytic NP	0.47 uF	50 V M	2	P4	4428525860	Wafer AC 1P		1
C335/R336	3579622970	Electrolytic NP	2.2 uF	50 V M	2	P8	4428525860	Wafer AC 1P		1
C337	3579101130	Ceramic Disc	100 pF	50 V J	1	P9	4428525860	Wafer AC 1P		1
C338 L/R	3479247964	Electrolytic AH	4.7 uF	35 V M	2	P10	4428525860	Wafer AC 1P		1
C339 L/R	3479210064	Electrolytic AH	10 uF	35 V M	2	P17	4428525780	Wafer AC 2P		1
C340 L/R	3479247964	Electrolytic AH	4.7 uF	35 V M	2	P18	4428525730	Wafer AC 2P		1
C341 L/R	3479247964	Electrolytic AH	4.7 uF	35 V M	2	P19	4428525780	Wafer AC 2P		1
CNT102	4428516310	Wafer 4P			1	P20	4428525780	Wafer AC 2P		1
CNT103	4428516410	Wafer 5P			1	P21	4428525780	Wafer AC 2P		1
CNT401	4428516710	Wafer 8P			1	P23	4428525860	Wafer AC 1P		1
CNT402	4428516310	Wafer 4P			1	P24	4228001410	Pin Solder		1
CNT403	4428516310	Wafer 4P			1	P25	4228001410	Pin Solder		1
CNT501	4428517810	Wafer 5P			1					
CNT502	4428516310	Wafer 4P			1					
CNT608	436202123132	Lead Assy 2P 120 mm			1					
CNT609	436205303132	Lead Assy 5P 300 mm			1					
P3	054021010032	Ass'y P.C.B Supply				P3-1	054021010033	Ass'y P.C.B Speaker A		
59	7505206210	H/Sink, Regulator TR.3				49	4408106910	Terminal Speaker		2
60	7505206110	H/Sink, Regulator TR.			2	Q701-Q706	2208606114	MPSA06, NPN		6
63	4618007710	Voltage Selector		Dom,B		Q707	2208222105	DTA114YS		1
IC801	2168601109	GD7824, Regulator			1	D714-D716	2258128002	1N4003, Rectifier		3
IC802	2168609103	GD7924, Regulator			1	RLY701	5518001450	Relay, JC-2AD-DC24V		1
IC803	2168601105	GD7815, Regulator			1	RLY702	5518001450	Relay, JC-2AD-DC24V		1
IC804	2168601111	GL7915, Regulator			1	RLY703	5528001610	Relay, OSA-SS-224DM3		1
IC805	2168601110	GD7806, Regulator			1	L501 L/R	2648601470	Coil Inductor 50uH		2
Q801	2208606104	KTC1815/BKTC3198, NPN Silicon			1	R542 L/R	3029100572	Metal Film 10 ohm 2 W J		2
D809-D825	2258128002	1N4003, Rectifier			7	R543 L/R	3029100472	Metal Film 10 ohm 1 W J		2
RLY801	5528001640	Relay, OSA-SS-112DM8			1	R709 L/R	3069106270	Carbon Film 10 Mohm 1/4 W J		2
X-FOR803	2828090901	ST/BY Transformer			1	R713 L/R	3069104270	Carbon Film 100 kohm 1/4 W J		2
△ 2828099491	ST/BY Transformer			Dom		R728	3069472270	Carbon Film 4.7 kohm 1/4 W J		1
R803/R804	3029220472	Metal Film 22 ohm 1 W J			2	R729	3069473270	Carbon Film 47 kohm 1/4 W J		1
R805/R806	3029100472	Metal Film 10 ohm 1 W J			2	R730	3069103270	Carbon Film 10 kohm 1/4 W J		1
R807	3069472970	Carbon Film 4.7 kohm 1/4 W J			1	R731-R734	3069332270	Carbon Film 3.3 kohm 1/4 W J		14
C801/C802	3549472410	Ceramic Disc 0.0047 uF 400 V J			2	R738	3069332270	Carbon Film 3.3 kohm 1/4 W J		1
C805/C806	3419510252	Electrolytic AM 1000 uF 100 V M			2	R741	3069104270	Carbon Film 100 kohm 1/4 W J		1
C807/C808	3409310269	Electrolytic SG 1000 uF 35 V M			2	R742	3069103270	Carbon Film 10 kohm 1/4 W J		1
C809/C810	3479347041	Electrolytic SG 47 uF 15 V M			2	C524 L/R	3679104297	Mylar 0.1 uF 63 V K		2
C811/C812	3409347169	Electrolytic SA 470 uF 35 V M			2	C525 L/R	3679104297	Mylar 0.1 uF 63 V K		2
C813/C814	3479210071	Electrolytic SA 10 uF 50 V M			2	C527 L/R	3579472530	Ceramic Disc 0.0047 uF 50 V Z		2 D
C815	3409347139	Electrolytic SG 470 uF 16 V M			1	C528 L/R	3579472530	Ceramic Disc 0.0047 uF 50 V Z		2 D
C816/C817	3479210071	Electrolytic SA 10 uF 50 V M			2	C533 L/R	3579472530	Ceramic Disc 0.0047 uF 50 V Z		2 D
F803	△ 5508302735	Fuse, TL 3.15 A			1 D	CNT701	4428525540	Wafer 4P		1
△ 5508203230	Fuse, NB 6.3 A				1 Dom	CNT702	4428525520	Wafer 2P		1
F804	△ 5508202830	Fuse, NB 3.5 A			1 Dom	CNT703	4428525550	Wafer 5P		1
F805	△ 5508202830	Fuse, NB 3.5 A			1 Dom	CNT708	436204603132	Lead Assy 4P 600 mm		1
F806	△ 5508302035	Fuse, TL 1 A			1 D	CNT713	4428509000	Wafer 9P		1
△ 5508202030	Fuse, NB, 1 A				1 Dom	PB507 L/R	6165141430	Power Bend (C)		2
						PB508 L/R	6165141410	Power Bend (A)		2
						PB509 L/R	6165141420	Power Bend (B)		2
						P3-2	054021010034	Ass'y P.C.B Speaker B		

Ref. No.	Parts No.	Description	Q'ty	Version
IC701	2168000113	IC, KA324	1	
D704-D706	2058322101	1N4148, Switching	3	
D707	2258599116	Zener, UZ 12.0BSC	1	
D708-D711	2058322101	1N4148, Switching	5	
D713	2058322101	1N4148, Switching	1	
D718	2058322101	1N4148, Switching	1	
D719L/R	2058322101	1N4148, Switching	2	
D720	2058322101	1N4148, Switching	1	
R710/R711	3069332270	Carbon Film 3.3 kohm 1/4 W J	2	
R712	3069103270	Carbon Film 10 kohm 1/4 W J	1	
R714	3069123270	Carbon Film 12 kohm 1/4 W J	1	
R715	3069109270	Carbon Film 1 ohm 1/4 W J	1	
R716	3069471270	Carbon Film 470 ohm 1/4 W J	1	
R717	3069334270	Carbon Film 330 kohm 1/4 W J	1	
R718-R720	3069104270	Carbon Film 100 kohm 1/4 W J	3	
R721	3069913270	Carbon Film 91 kohm 1/4 W J	1	
R722	3069153270	Carbon Film 15 kohm 1/4 W J	1	
R724	3069222270	Carbon Film 2.2 kohm 1/4 W J	1	
R726	3069222270	Carbon Film 2.2 kohm 1/4 W J	1	
R739	3069101270	Carbon Film 100 ohm 1/4 W J	1	
R740	3069101270	Carbon Film 100 ohm 1/4 W J	1	
C701/C702	3479347041	Electrolytic SG 47 uF 25 V M	2	
C703	3479233971	Electrolytic SA 3.3 uF 50 V M	1	
C704	3479322121	Electrolytic SG 220 uF 10 V M	1	
CNT705	4428525520	Wafer 2P	1	
CNT706	4428525520	Wafer 2P	1	
CNT707	4425525530	Wafer 3P	1	
CNT709	4428503810	Wafer 3P	1	
CNT710	4428524810	Wafer 6P	1	
CNT711	4428524810	Wafer 6P	1	
SLT701	4119102125	Wire Slat 2P 120 mm	1	

P1-3 054021010030 Ass'y P.C.B Volume Indicator

LED612	2308220142	LED, SLH-34K-3	1	
LED613	2308220142	LED, SLH-34K-3	1	
LED614	2308220142	LED, SLH-34K-3	1	
CNT670	4428525520	Wafer 2P	1	

P1-2 054021010029 Ass'y P.C.B Digilink

54	4438304410	Jack Digilink, Gold	1	
CNT601	436202403132	Lead Ass'y 2P 400 mm	1	

P1-1 054021010028 Ass'y P.C.B Outlet

48	△ 4448103910	AC Outlet, ABS Black	2	Dom Only
	△ 4448102810	AC Outlet, ABS Black	1	A,B
	△ 4448103610	AC Outlet, ABS Black	2	D
F801	△ 5508302035	Fuse, T 1 A 250 V	1	
F802	△ 5508302035	Fuse, T 1 A 250 V	1	
P17	4358880240	Lead Ass'y 2P 400 mm	1	
	4255001010	Clip Fuse, PFC5000-0202	4	

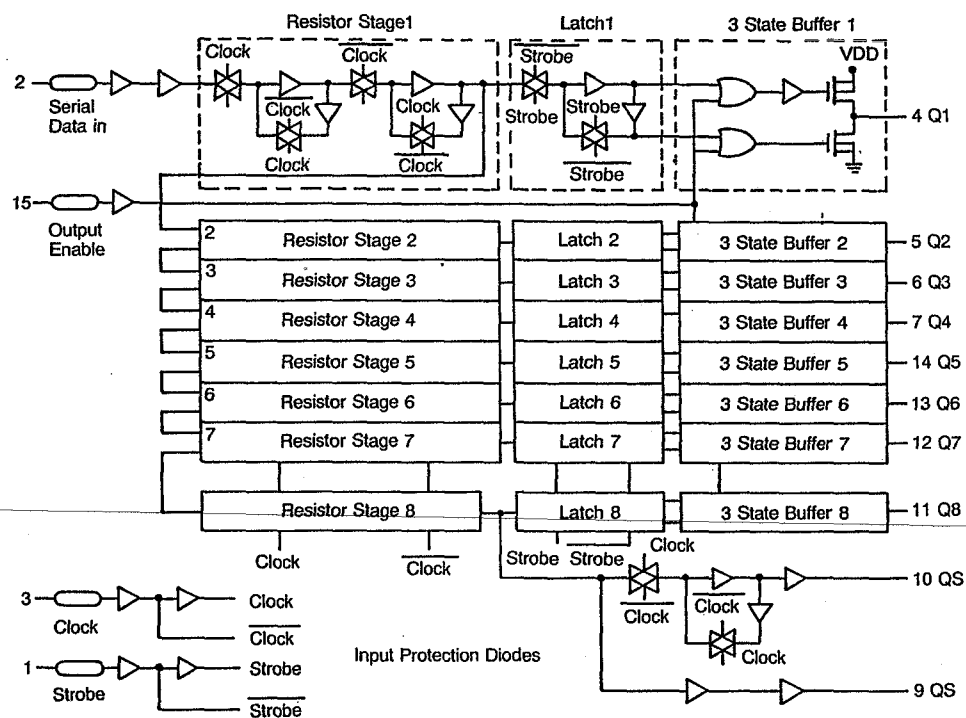
P4-4 054021010039 Ass'y P.C.B Bridge Diode

D801	△ 2058100139	Diode Bridge KBPC-2504	1	
C820/C821	3069334120	Carbon Film 330 kohm 1/4 W J	2	
P22	4359784017	Lead Ass'y 1P 170 mm	1	
Others				
C803	△ 3419727342	Electrolytic AM 27000 uF 80 V M	1	
C804	△ 3419727342	Electrolytic AM 27000 uF 80 V M	1	
X-FOR1	△ 2828000281	Power Transformer A, 230 V 50 Hz	1	
X-FOR2	△ 2828000291	Power Transformer B, 230 V 50 Hz	1	
	△ 2828000251	Power Transformer A, 110/220 V 60 Hz	1	
	△ 2828000261	Power Transformer B, 110/220 V 60 Hz	1	
	△ 2828009471	Power Transformer A, 220 V 60 Hz	1	
	△ 2828009481	Power Transformer B, 220 V 60 Hz	1	
P15R	4359076026	Lead Ass'y 1P 260 mm	1	

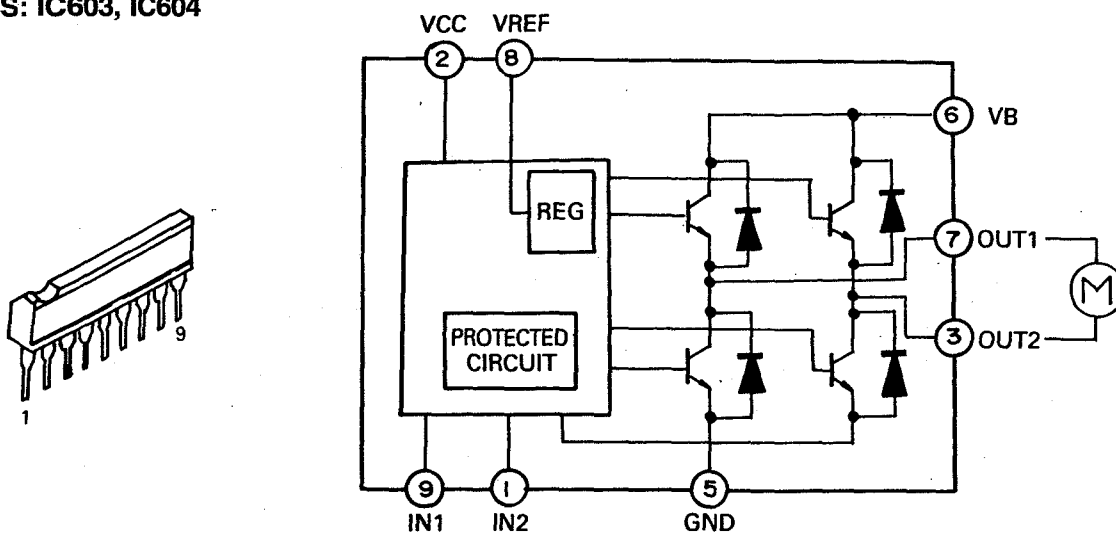
Ref. No.	Parts No.	Description	Q'ty	Version
P15L	4359076021	Lead Ass'y 1P 210 mm	1	
P27	4359175212	Lead Ass'y 1P 120 mm	1	
P28	4359175614	Lead Ass'y 1P 140 mm	1	
P26	4359775012	Lead Ass'y 1P 120 mm	1	
P-8	4359794010	Lead Ass'y 1P 100 mm	1	
P-23	4359794034	Lead Ass'y 1P 340 mm	1	
	4359774026	Lead Ass'y 1P 260 mm	1	
	052438000180	Ass'y Posistor, 180 mm	1	
	052438000280	Ass'y Posistor, 280 mm	1	
	052438000400	Ass'y Posistor, 400 mm	1	
	6165144410	Power Bend (D)	1	
054021010040 Ass'y P.C.B Commander				
IC1	2138013122	CPU6122G-002	1	
Q1	2208606112	KTD1302, NPN	1	
D1	2408001100	Diode, EL2	1	
SENSOR	3938001001	Resonator, CSB455E	1	
R1	3069229970	Carbon Film 2.2 ohm 1/4 W J	1	
R2-R6	3069224270	Carbon Film 220 kohm 1/4 W J	4	
C1/C2	3519101935	Ceramic Tubular 100 pF 50 V J	2	
C3	3479347041	Electrolytic SG 47 uF 25 V M	1	

IC'S LEAD IDENTIFICATION & INTERNAL DIAGRAM

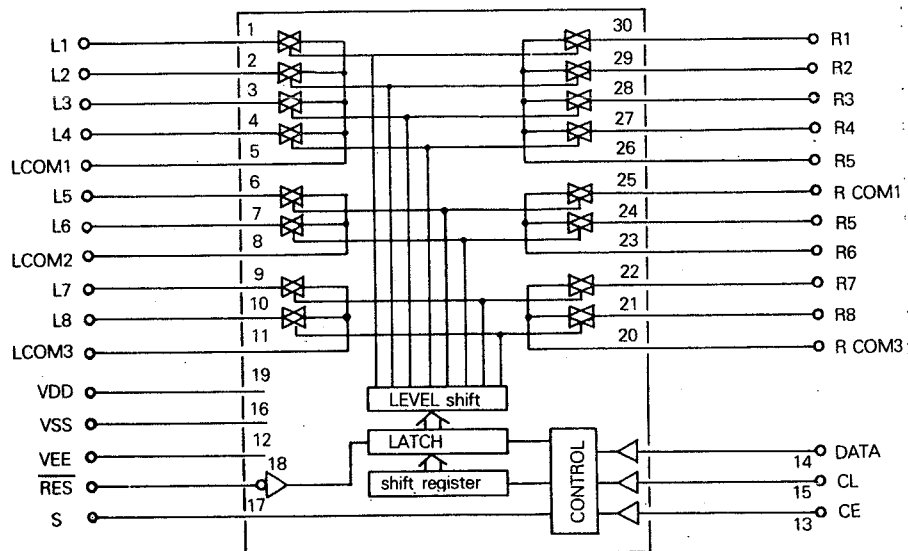
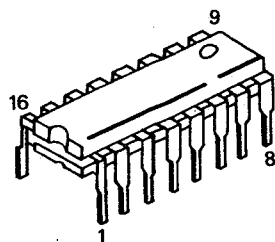
MC14094: IC602



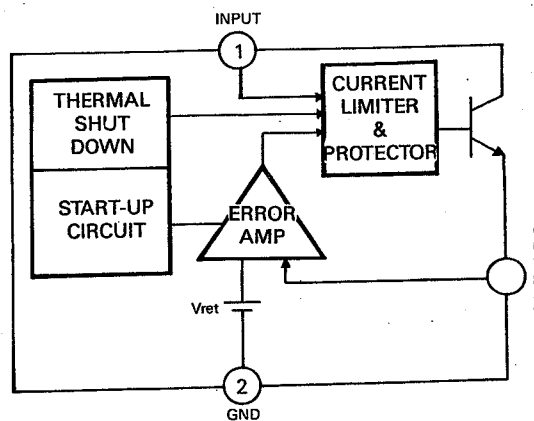
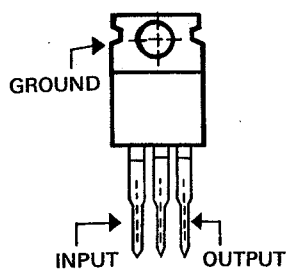
TA7291S: IC603, IC604



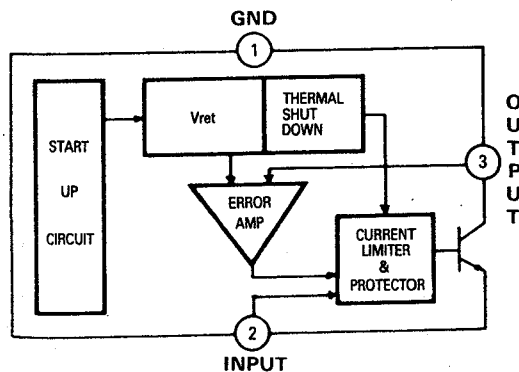
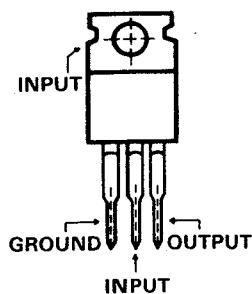
LC7821: IC301



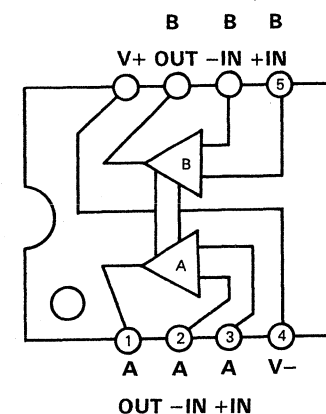
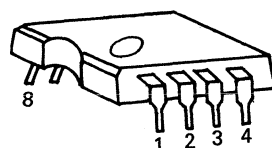
GD78XX: IC801, 803, 805



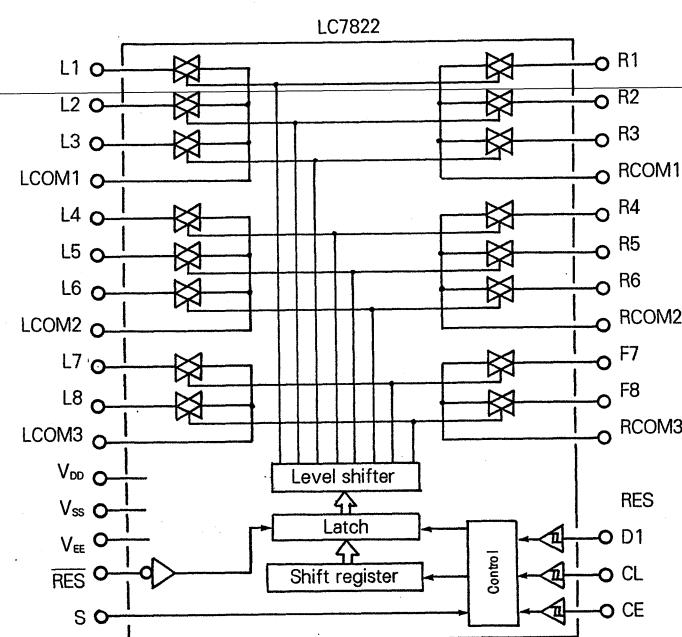
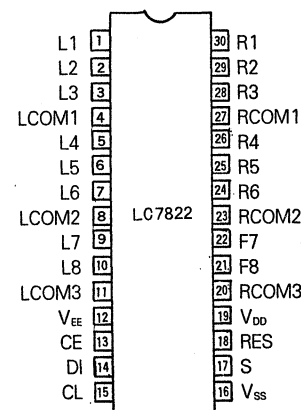
GA79XX: IC802, 804



M522OP: IC101, 102, 201, 401
301, 302, 303, 304, 305, 306



LC7822: IC308



TRANSISTORS LEAD IDENTIFICATION

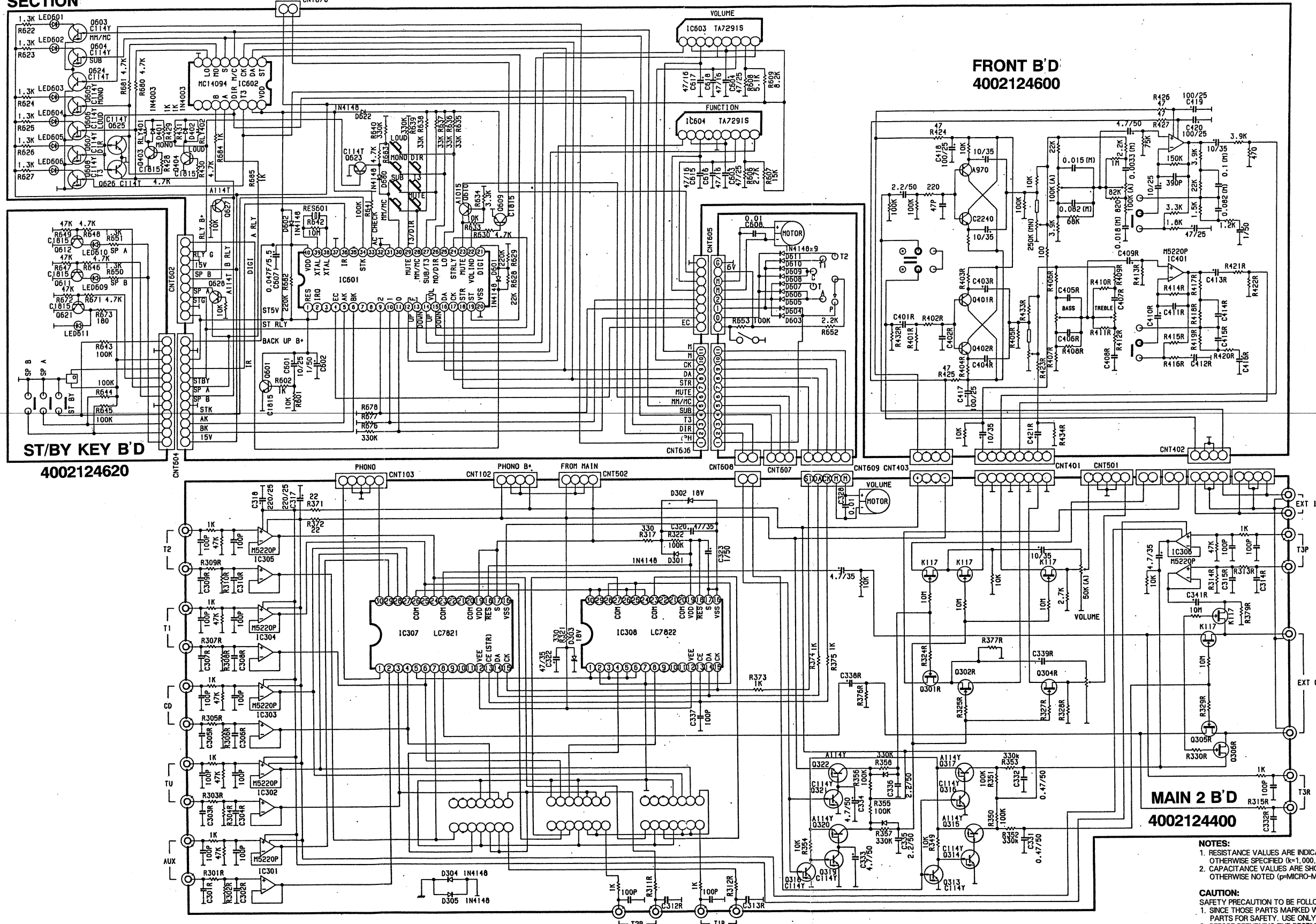
Transistor	Front View	Bottom View
2SC3329GR 2SA1316GR 2SC1815 / 2SC3198 KTD1302 KTC2235 KTA970 KTA949 KTC2229	 E C B	 E C B
2SA1386A-Y 2SC3519A-Y	 B C E	 B C E
2SA1859A-Y 2SC4883A-Y	 B C E	 B C E
2SC4137	 E C B	 E C B
2SK117Y	 D G S	 D G S
DTC114TS DTC114YS DTC144E	 E C B	 E C B
2SK332F	 S G D	 S G D
TERMINAL NAME		
B → BASE S → SOURCE C → COLLECTOR G → GATE E → EMITTER D → DRAIN		

MAIN 2/FRONT/ST-BY SECTION

VOL. IND. B'D
4002124330

SCHEMATIC DIAGRAMS

Model No.: AX-9035R



NOTES:
1. RESISTANCE VALUES ARE INDICATED IN OHMS UNLESS OTHERWISE SPECIFIED (x=1,000, M=1,000,000).
2. CAPACITANCE VALUES ARE SHOWN IN MICROFARADS UNLESS OTHERWISE NOTED (p=PICTO-MICRO FARADS).

CAUTION:
SAFETY PRECAUTION TO BE FOLLOWED DURING SERVICING.
1. SINCE THOSE PARTS MARKED WITH Δ ARE CRITICAL PARTS FOR SAFETY, USE ONLY THE ONE DESCRIBED IN THE PARTS LIST.
2. BEFORE RETURNING THE RECEIVER TO THE CUSTOMER, MAKE APPROPRIATE LEAKAGE CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE PROPERLY INSULATED FROM THE SUPPLY CIRCUIT.

**MAIN1/SUPPLY/SPEAKER A
/SPEAKER B SECTION**

Model No.: AX-9030R/9035R

